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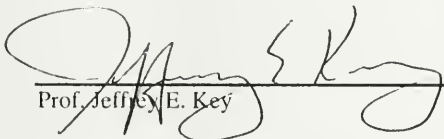
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Communications Technologies
Empowering Central American Indigenous Communities

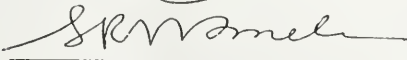
A Senior Honors Thesis in the Department of Government and International Affairs,
Sweet Briar College

By Lauren Friend

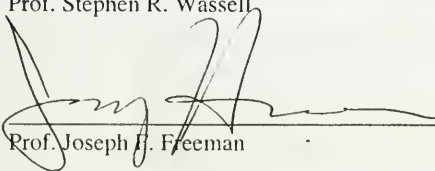
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Abstract

Globalization, with its underlying neo-liberal theory, is a very contentious issue in world politics. Its effect on indigenous populations is especially troubling for many scholars of international affairs. This paper explores the consequences of globalization for indigenous populations in Central America, the struggles that have erupted in the region as a backlash to globalization, and the potential for globalization, primarily through globalizing technologies such as the Internet, to be a peaceful empowering force for the marginalized indigenous peoples of Central America.

Chapter One examines the detrimental effects of globalization on indigenous populations in Central America: economic disadvantages, political discrimination, social strains, cultural suppression, and environmental devastation. It demonstrates the ways in which globalization exacerbates indigenous marginalization. Chapter One also examines the indigenous struggles that have exploded in a backlash against globalization since the end of the Cold War.

Chapter Two studies the advent of widespread communication technologies, particularly the “globalizing” technologies of the Internet and digital communication. These technologies have already benefited indigenous populations in Central America and have great potential for continued empowerment of marginalized peoples. This chapter addresses indigenous empowerment through information communication technologies in regard to economics, politics, culture, social issues, and the environment. Chapter Two also provides an assessment of the accessibility of information technologies for rural and poor indigenous peoples.

Chapter Three assesses the likelihood of indigenous empowerment, both domestically and within the global system. It stresses several other important factors, which affect indigenous peoples’ potential empowerment through information technology, including: indigenous approval, US involvement, Central American government support, non-governmental organization support, corporate concessions and cooperation, and action by the international community.

Introduction

When the *conquistadors* arrived in the New World, the indigenous peoples of the Americas began their struggle against foreign invaders, foreign influences, and foreign power structures. Five hundred years later, the struggle continues. On January 1, 1994, Zapatista rebels in Chiapas, Mexico began a rebellion against the Mexican government. Today, indigenous communities in the state of Chiapas have established thirty-two autonomous municipalities, governed not by the descendents of the *conquistadors*, but by indigenous peoples. The movement is self-proclaimed as the “International Encounter for Humanity and Against Neo-liberalism.” The Encounter is international because a second encounter has occurred in Spain and a third in Brazil.¹ In fact, indigenous societies throughout Latin America are rising against the governments who trace their origins to regimes imposed upon the indigenous peoples centuries ago.

The Zapatista rebellion and the ensuing “International Encounter” are fascinating, not only because the indigenous peoples are successfully struggling against their own governments, but also because they claim to struggle against “neo-liberalism.” Neo-liberalism is the theory underlying globalization.² Several Central American indigenous organizations have joined the struggle against globalization.

A struggle that proclaims itself to be against the theoretical basis for a global system as large and encompassing as globalization is certainly ambitious. Furthermore, the International Encounter demonstrates that globalization is not universally popular and that people are willing to struggle against it.

Globalization is such a pervasive force that opponents intent on destroying or undermining it will probably not succeed. Instead of challenging globalization, those who desire

a different global system should attempt to change globalization so that it serves their needs. While globalization has been a devastating force for many, most notably poorer and indigenous populations, globalization is benefiting and liberating others. Those who benefit from globalization need not be the elite of the last five hundred years. It is also possible for indigenous peoples to use the tools of globalization, especially communication technologies, to achieve empowerment both domestically and internationally.

In examining globalization among Central American indigenous populations, with a particular focus on communication technologies, this paper suggests that globalization offers these peoples an unprecedented opportunity for empowerment; provided that indigenous groups utilize the beneficial technologies of globalization instead of fighting against globalization, and that both the private and public sectors of the international community embrace globalization as an equalizing, rather than marginalizing force.

Defining Globalization

Broadly defined, globalization is a movement towards global economic and social integration facilitated by better communication, an increase in economic transactions, and improvement in technology and infrastructure. However, globalization, thus defined, is not a new concept in world history. It can be argued that globalization began with Columbus arriving in the New World, Marco Polo traveling to China, or even the Asiatic peoples who crossed the Bering Strait thousands of years ago. The current era of globalization marks its inception with the fall of the Berlin Wall in 1989 and the resulting end of the Cold War. From this time forward, unless referenced otherwise, “globalization” refers to the post-Cold War era of globalization.

Like the Cold War, the Industrial Revolution, and the Age of Exploration, globalization is an “international system.”³ Thomas Friedman defines an international system as a system which “is directly or indirectly shaping the domestic politics, economic policies, and foreign relations of virtually every country.”⁴ As with all other international systems, globalization is pervasive and unavoidable.

Neo-liberalism is the theory underlying globalization. The end of the Cold War not only marked the inception of globalization, it also marked the victory of liberalism as an theory. In his article, *The End of History?*, Francis Fukuyama argued that “economic and political liberalism”⁵ defeated all other ideological competitors, most notably fascism at the culmination of World War II and communism at the end of the Cold War. Most opponents of globalization focus on neo-liberalism’s economic precept. Since, the free-market theory espoused by the World Bank, the International Monetary Fund, and North Atlantic Free Trade Agreement supporters can be devastating for fragile economies. However, neo-liberalism’s political precept, the precept promoting freedom and democracy, is equally relevant.

Defining Communication Technologies

In this paper, the phrase “communication technology” encompasses virtually every technology which enhances human communication, including, but not limited to, telephones, radios, fax machines, digital cellular telephones, computers, handhelds, and the Internet. The phrases “information technology” (IT) and “information communications technology” (ICT) will be used interchangeably here. The terms IT an ICT refer only to digital information technologies, such as cellular phones, email, computers, and the Internet, and thus are more specific terms.

Chapter One: The Marginalization of Indigenous Peoples

For five centuries, the indigenous populations of Central America have endured economic disadvantages, political discrimination, social strains, cultural suppression, and environmental degradation; these injustices persist in the globalization era. While globalization has not caused these problems, it has exacerbated them. This chapter addresses the plight of indigenous peoples in Central America which can be directly linked to the forces often associated with globalization. It also addresses the indigenous insurgencies who direct their resistance against globalization and neo-liberalism.

Economic Disadvantages

Pablo Richard, a Chilean theologian, commented that while, “the Berlin wall was torn down and the West was elated,” now “another gigantic ‘wall’ is being built to hide the poverty of the Third World.”⁶ Much of the “First” world does not realize the poverty and other detrimental effects that globalization has had on the poor and indigenous peoples of the “Third World.” Many have been able to ignore the fact that while this “New World Order”⁷ economically benefits Northern populations, it actually places enormous economic strain on the indigenous peoples of the Third World, notably in Central America.

Neo-liberalism’s free-market economic policy is attacking Central American economies from several directions. Former Foreign Minister of Nicaragua Miguel D’Escoto, of the Sandinista regime, describes the Central American economies as being in a state of war, not a war of guns, but “economic wars – wars between the haves and the have-nots.”⁸ These wars are not the civil or regional wars of the past; rather it is economic “war that the countries of the North are waging against the Third World.”⁹ The economic weapons the North uses to attack the Third World are free trade agreements and transnational corporations.

Free trade agreements, the epitome of neo-liberal economic theory, are devastating for indigenous peoples. The Zapatistas did not randomly select January 1, 1994 to begin their “war” against indigenous oppression at the hands the Mexican state and globalization. It was this day that the North American Free Trade Agreement went into effect. Thus, symbolizing that the primary concern of the Zapatistas is neo-liberalism’s invasion of Central American markets and politics. The Reverend Philip E. Wheaton writes, “The Zapatistas are neither motivated by any foreign ideology nor supported by any leftist government. Rather, they are driven by local injustices in Chiapas directly linked to Mexico’s political corruption, which, in turn, is connected to the ‘New World Order.’”¹⁰ Thus, the Zapatistas proclaim free trade agreements violate indigenous rights, and hence are worthy targets of indigenous resistance.

While the global market benefits, indigenous people are hurt when free trade agreements eliminate existing social safeguards or flood the local market with cheap foreign goods. The World Trade Organization (WTO) requirements and the North American Free Trade Agreement (NAFTA) have made many millionaires in Central America. As of 1996, twenty of the hundred richest people in the world are Mexican.¹¹ However, the following examples illustrate the stories of the millions of Mexicans who are not as lucky.

One condition of NAFTA is that the Mexican government must eliminate all remnants of the “*ejido* system”¹² from Article 27 of the Mexican constitution. The *ejidos*, a triumph of the Mexican Revolution, are marginal lands set aside for the collective use of indigenous populations. However, in order to conform to NAFTA, which discourages communal land ownership, the *ejidos* were divided into one or two acre plots, with each peasant given a single

title. Eventually, it became impossible for these indigenous peasants to compete with large landowners and many were forced to sell their plots to the large landowners in order to survive.¹³

Another condition of NAFTA is the reduction or elimination of tariffs. When the tariff on imported corn was lifted, US agro-businesses exported large amounts of corn into Mexico, making it impossible for indigenous peasants to compete, thus costing them their livelihood.¹⁴

In light of these examples it is not surprising that at the Peoples Summit of the Americas in 1998 the convention declared, “We are convinced that America does not need free trade. We need a fair trade.”¹⁵

Transnational Corporations

Transnational corporations have long exploited the indigenous peoples of Central America. However, with the support of international financial institutions and free trade agreements, transnational corporations have become more prevalent in the Central American economic landscape.

In recent decades, transnational corporations have expanded dramatically in Central America through the construction of manufacturing plants called *maquiladoras*.¹⁶ There are 2,700 of these plants along the US-Mexican border,¹⁷ and thousands more scattered throughout Central America. In Guatemala, where *maquiladoras* employ 40,000 workers, assembly women and men are paid between one and two US dollars for a 16 hour day.¹⁸ In Haiti, workers only make 14 cents per hour.¹⁹ Transnational corporations argue “Fourteen cents per hour is better than zero cents per hour.”²⁰ However, many indigenous peoples point their finger back at transnational corporations. The indigenous peasants have no choice but to work in *maquiladoras* or starve because the corporations, through free trade agreements, new building plans, or hundred-year-old treaties, have forced them off of their land.

Just as the indigenous *ejido* landowners in Mexico were persuaded to sell their land to corporations because of NAFTA, peasants and indigenous populations throughout Central America are often required to vacate land whenever transnational corporate landowners deem it is necessary. The majority of land in Central America is without legal title. In theory, it is “government land which is simply ‘claimed’ by whoever occupies it for a certain number of years.”²¹ Or, it is owned by large landowners, sometimes transnational corporations, who do not maintain or supervise the vast amounts of land under their control. In Honduras, the Council of Popular Indigenous Organizations (COPIN) factions have settled several swaths of this idle land in hopes of establishing communities.²² Unfortunately, some of these land “recuperations” have provoked a negative reaction from transnational corporations, with the support of the Honduran government. In the town of Tacamiche, 500 indigenous residents were told to evacuate the land they had occupied for seventy years as a result of a nearby Chiquita Brands International plant closing. Tacamiche was considered “company lands,” since the company had purchased it for one dollar in the 1930s.²³ In the Guayamas and Delicias del Sur regions, the government aided fruit companies and cattle ranchers in throwing the indigenous peoples off of the land. In Guayamas, three peasants were killed by government fire.²⁴ In fact, the Honduran government has launched a “ferocious campaign against indigenous people,” and as a result, “47 indigenous people have been killed...and several are still in prison.”²⁵

Ultimately, in their struggle against neo-liberalism, COPIN hopes to convince the Honduran government to end collusion with global institutions and corporations who are “pressuring us to build ‘mega-projects’ on indigenous lands - refineries, tourist resorts, and hydroelectric dams - that threaten to displace our people.”²⁶ COPIN also empathizes with the indigenous peoples in El Salvador, where the World Bank along with “economic elites” in the

construction and hydroelectricity industries have created a plan to build a dam that will displace 60,000 indigenous families.²⁷

Transnational corporations, along with the international finance institutions and free trade agreements that support them, are certainly not popular with the indigenous people of Central America.

Political Discrimination

For centuries, the indigenous peoples of Central America have been excluded from political processes in their native land. While most political discrimination occurred under colonial regimes, it was also difficult for indigenous peoples to find a voice in the autocratic and pseudo-democratic regimes of the twentieth century. With the end of the Cold War, and with the victory of neo-liberal theory, true democracies began to blossom and flourish throughout Central America, and indigenous peoples discovered that they could have a voice in the political process. However, with neo-liberalism's political precepts came neo-liberalism's economic precepts, and transnational corporations found that they too have a place in the politics of the state. Thus, the democratic states that finally recognize indigenous political needs are quickly losing sovereignty to transnational corporations and international financial institutions.

Democracy

One of globalization's most constructive exports is democracy. However, even democracy does not always carry a positive connotation for indigenous peoples. Some, like Pedro Casaldáliga, argue that democracy in Central America is in reality a "strategic tool to perpetuate dominion" because it is too often "formal democracies...in which authoritarianism and grave violations of human rights...still occur."²⁸ However, pseudo-democracies, like the ones described by Mr. Casaldáliga, were far more common in Central America during the Cold

War than they are during the current era of globalization. These “strong” democracies were established and supported by the United States to provide a fortress against communism in Central America.²⁹

Yet, even the reformed democracies of today receive criticism. Xabier Gorostiaga, an economist at the Central American University in Managua, Nicaragua, describes the democracy encouraged by neo-liberalism as “champagne-cup democracy,” in which “20 percent control 83 percent of the national product...and 60 percent of the population survive on six percent of the gross national product.”³⁰ While many in the United States view democracy as participation in the electoral process, indigenous people in Central America view democracy as participation in all aspects of life, political and economic. According to Mr. Gorostiaga, “The only difference between the United States and Central America is that the United States allow two thirds of the population to participate (in the economy) in some ways. In our countries, two thirds are excluded. This makes democracy impossible, because democracy requires majority participation.”³¹

Loss of Sovereignty

For many citizens of the United States it may seem odd that Mr. Gorostiaga, and others in Central America, would define democracy in terms of participation in the economy as well as participation in the electorate. Thomas Friedman explains that it is the heavy involvement of transnational corporations and international finance institutions in government who “contribute to a widespread feeling, particularly within democracies, that even if people have a democracy at home they have lost control over their lives, because even their elected representatives have to bow now to un-elected market dictators.”³² Thus, while indigenous peoples may have control

over politicians through the electoral process, the politicians have lost much of their sovereignty to transnational corporations and international financial institutions.

The Reverend Philip Wheaton notes, “I discovered a *fundamental paradigm shift had occurred from political to economic power* while I was in Central America (1989-1991).”³³ This fundamental paradigm shift was, in actuality, a shift from a Cold War international system to the system of globalization. Globalization requires every state to resign a bit of its sovereignty. In order to have increased economic interdependence, advanced communication, and a free flow of ideas, all states must conform to a similar economic and political structure and must abide by similar rules. The rules established by the theory of neo-liberalism are free-market capitalism and democracy. However, these global pressures on governments to accept the tenets of neo-liberalism severely compromise “the power of the people to determine their own destiny as a nation.”³⁴

Sovereignty, in neo-liberal societies, is often resigned primarily to economic powers, as illustrated by the following two examples. When the Clinton Administration sent Mexico a \$50 billion bail out in 1995, Riordan Roett, head of the “Emerging Market Group” at the Chase Manhattan Bank issued a memo to Mexican President Zedillo, which called upon him “to eliminate the Zapatistas to demonstrate... effective control of the national territory and security policy.”³⁵ In the face of this corporate pressure, President Zedillo ordered the Mexican Army to occupy all pro-Zapatista villages and expose Zapatista leadership.”³⁶ In affect, a North American corporate leader was making policy decisions in Mexico.

In Haiti, President Bertand Aristide was forced to resign some sovereignty to the World Bank when he was obligated to sign a World Bank plan for structural adjustment before the

United States would guarantee his return back to Haiti.³⁷ Thus, a global finance institution formed and forced Haiti's economic policy.

If the world conforms to the neo-liberal economic model, then nations have lost what is traditionally associated with democracy: citizen control over elected political leaders. According to Thomas Friedman, neo-liberal economic policy will eventually dictate the "political lives"³⁸ of many countries. The problem is that economic powers, like the World Bank and transnational corporations, are able "to vote in all kinds of countries every day, but those countries do not get to vote on the[ir] behavior."³⁹ Thus, indigenous people feel even more threatened by globalization because it takes away their long fought for right to participate in the politics of their own country.

Social Strain

Five hundred years of poverty has placed enormous social strains on the indigenous peoples of Central America, and globalization has only served to exacerbate these problems. The gap between the rich and the poor is growing with more Central American millionaires and more Central American paupers than ever in history.⁴⁰ However, it is the impoverished, like the fifty percent of all Mexicans who fall below the minimum daily nutritional standard,⁴¹ who place the greatest strain on the social structure of Central American countries.

Women

As social structures deteriorate, women are often expected to hold society together as the mothers, teachers, healers, and homemakers. However, poverty hits women the hardest. It is often said, "poverty has a woman's face"⁴² because most of the world's poor are women. Thus, the position of women in a situation of social injustice is a difficult one.

During social turmoil, women are required to provide income for their families. In rural villages throughout Central America, women often do twice the work as men for virtually no pay.⁴³ In the cities, it is the women who work in the *maquiladoras*; in Guatemala, eighty percent of all *maquiladora* workers are women⁴⁴ and similar statistics are found throughout Central America. Throughout Central America, “women are being forced to work triple shifts – in the home, on the farm and in off-farm employment – to survive falling wages and cuts in education, health care and consumer subsidies.”⁴⁵

When the social fabric is under pressure, indigenous women find themselves in a number of difficult situations. Indigenous women in poverty stricken countries are more likely to be faced with domestic violence because “economic insecurity and violence also breeds domestic insecurity and violence.”⁴⁶ Prostitution is also far more common in situations of economic instability. In Haiti, several women have commented, “many times we have to degrade ourselves and sleep with a supervisor in order to obtain a position.”⁴⁷ In the Caribbean, the “racist tourist industry” has created wealth for the white landowners, but only “generated prostitution, disease and deprivation”⁴⁸ for the indigenous populations. When a society falls apart, it is the women who must break the fall, and they often must go to great lengths to do so.

Brain Drain

Globalization decreases the likelihood that a society will be able to rebuild from economic chaos because it increases the likelihood that the very intelligent young men and women who could rejuvenate the economy and support their nation are lured away to foreign lands. Xavier Gorostiaga notes that “a professional or a good technician is immediately absorbed by the international institutions, the World Bank, the IMF, the UN, even by the United States or Canada.”⁴⁹ Globalization, through advances in travel and communication, and the

advent of more multinational corporations with a need for multinational employees, increases the number of opportunities for people from all over the world to find jobs elsewhere. Unfortunately, this “brain drain” makes it ever more difficult for a society to rebound from situations of social turmoil.

Dividing Communities

In addition to luring away the best and the brightest workers from Third World countries, transnational corporations entrenched in Central America divide communities through monetary incentives (or, as the indigenous people refer to them, “bribes”). Most indigenous peoples are outraged by the actions of transnational corporations in their region. However, as Bolívar Santi writes, “the company (ENI/AGIP) purchases consciences, giving food and vehicles to those who defend the petroleum interests.”⁵⁰ Thus, the traditionally united indigenous communities are divided into factions of those who support the company, and those who do not.

Other indigenous peoples have noted the unwanted aid from the transnational corporations. Aida, an Ecuadorian native, said, “we are not fooled by their cheap gifts of candy and medicine, we have our own medicines, thank you.”⁵¹ Mr. Santi noted, “indigenous communities have been given stupid gifts that we never asked for (like 2 toilets).”⁵² Flavio, also an indigenous Ecuadorian, spoke out as to why he rejects money from the ARCO oil company, “look, you eat for 15 days a soup made of dollars, and I will eat a soup made of magic leaves for 15 days and we will see who will live longer.”⁵³ The conflict between indigenous peoples with intense animosity towards transnational corporations and their gifts and indigenous peoples who accept gifts and jobs with the transnational corporations divide communities and increase the social strains indigenous peoples face.

Cultural Suppression

When Europeans arrived in the Americas, they immediately declared the indigenous peoples heathens and set forth to destroy their culture. Indigenous peoples were forced to adopt Christianity and the European languages of their conquerors. Stuart Schwartz described the dramatic subversion of indigenous culture by the conquistadors in his book *Victors and Vanquished*: “within only three years that empire [Aztec] was destroyed, ... [and] the foundations of its cultural traditions toppled ... Those who remained struggled to survive and adapt to the new Spanish colonial regime and to a new religion, Catholicism.”⁵⁴ While indigenous peoples greatly resent this European invasion and hostile take over of their culture, they may resent the imposed culture of globalization just as much. However, globalization does not need to use force in order to change the face of indigenous culture.

The Capitalist Culture

The culture of globalization is rapidly spreading around the world, and it looks quite a bit like capitalism. While the “culture of globalization” is difficult to define precisely, it can be described in a series of images. For example, the Inter-Hemispheric Resource Center describes the culture of globalization as “fast food restaurants, shopping malls, and elegant boutiques.”⁵⁵ Others will point to Coca-Cola, McDonalds, and blue jeans. Most images used to describe the culture of globalization tend to share similar characteristics: North American, market influenced, and homogenizing. Indigenous peoples are strongly opposed to what they view as “homogenous capitalist culture...imposing itself on the biodiversity of cultures,”⁵⁶ which already exists in Central American indigenous populations. However, indigenous culture is in a dire situation because globalization does not impose its culture, rather, the culture of globalization is often welcomed.

The welcoming of globalization's culture is often described as "soft power," which is influence "through attraction rather than coercion."⁵⁷ Soft power is the way in which the culture of globalization is able to permeate into that of other countries. In fact, globalization gains more influence in the world economy through soft power than any nation ever could through military might. As Benjamin Barber explains, "McDonald's in Moscow and Coke in China will do more to create a global culture than military colonization ever could."⁵⁸ Thus, for indigenous peoples, globalization is as threatening to their culture as the conquistadors were.

Globalization as a threat to indigenous culture is probably more concerning than any economic, political, or social threat because a threat to culture is a threat to identity. According to Terrell A. Northrup, identity is defined as "an abiding sense of selfhood that is the core of what makes life predictable to an individual."⁵⁹ If one feels a threat to his or her identity, to his or her sense of selfhood, then s/he becomes characterized by a "high emotional charge and a great sense of urgency," and, as a result, "severe conflict will ensue."⁶⁰ Identity is extended to "encompass a sense of self-in-relation-to-the-world."⁶¹ As the world changes through globalization, indigenous populations feel threatened by the world because it no longer relates to their sense of self. Thus, their natural reaction is to lash out against globalization.

Environmental Devastation

During the modern era of globalization, the environment of Central America has been devastated:

In the last 30 years we have had more destruction, more deforestation, more erosion than probably in the previous 500 years. I have seen the first satellite pictures of Central America taken in the late 1960s and the more recent pictures. In the 1970's Central America was green; now its red ... The ultimate tragedy is that the indigenous and peasants who preserved for us this biodiversity and these ecological resources for centuries are now, because of poverty, the main destroyers of nature. This is neo-liberalisms greatest crime, that it plunges people into poverty and unemployment.⁶²

The indigenous people of Central America are concerned about environmental destruction throughout Latin America and the world. They are especially disheartened by the devastation unleashed by major players in the global economy, namely transnational corporations and international financial institutions.

Transnational Corporations

Many transnational corporations, particularly oil, lumber, and mining companies, have a devastating impact on the Latin American environment. This is especially true in regions with large indigenous populations where there is little government regulation and oversight.

In Chiapas, Mexico, Lisa Ortiz noted that most rainforest deforestation has been caused by transnational corporations, especially those involved in “cattle raising, large scale commercial farming, and legal and illegal logging.”⁶³ Ms. Ortiz reported specifically on the environmentally destructive activities of the logging companies in Chiapas who engage in “widespread illegal logging.”⁶⁴ In addition, the companies attempt to turn the indigenous peoples from protectors to destroyers of their environment because they “paid poor *ejido* dwellers badly needed cash to extract the precious lumber from their land.”⁶⁵ As a result, “the Lacandón jungle was deforested rapidly, valuable timber resources disappeared, and the rainforest frontier was pushed closer to the Guatemalan border.”⁶⁶

In Ecuador, the activities of Italian based ENI/AGIP (Ente Nazionale Idrocarburi/Azienda Italiana Generale Petroli) hydrocarbon and petroleum company ravish the fragile Amazonian environment. Bolívar Santi, an indigenous Amazonian, reports on the activities of ENI/AGIP in his community. He is primarily concerned with the oil pipeline which runs through several environmentally protected areas, in violation of national and international law.⁶⁷ According to Santi, the environmental ramifications of the pipeline include, “landslides ... spills

of motor oil, and rust of drainage pipes, causing illnesses such as eye damage, skin infections, diarrhea, and headaches, and also the death of aquatic fauna and domestic animals.”⁶⁸

In addition, several indigenous Ecuadorians from San Virgilio marched to Quito in order to speak out against the environmental destruction caused by Atlantic Richfield Company (ARCO), a transnational oil company which is part of the British Petroleum “family” but was originally founded in the United States.⁶⁹ Although the President of Ecuador did not listen to their claims, their voices were heard and recorded. Rafael criticized the contamination of streams in San Virgilio, part of the Ecuadorian Amazon, by ARCO.

Why do they put chlorine, thousands of grams, to kill insects and fish and we like Indians are getting sick. Not even the animals can drink this water. The children cannot bathe. We are denouncing this. The government must control, not sell it off like this. This is our home ... We say no more petroleum in the Amazon.⁷⁰

Moses added that ARCO is also spilling gasoline into the river.⁷¹ The indigenous peoples all agreed the fish are dying, and animals fleeing, whatever the actual root of the contamination may be. What ARCO is dumping into San Virgilio’s rivers remains unknown. Flavio, declared that ARCO “said they would let everyone see their environmental impact study, but they have this study hidden away and will not let us see it. They have never once let us see it.”⁷² Unfortunately, because there is little oversight, transnational corporations operating in indigenous lands are able to damage the environment without answering to anyone, especially the natives of the land.

For public relations purposes, it is beneficial for transnational corporations to be “green.” However, the increased popular pressure to address environmental concerns has not resulted in more “green” corporations, but rather has turned many transnational corporations into “green washers.” “Green washing” is defined as the practice in which a corporation will give money to

an environmental cause without doing anything to change its core practices that destroy the environment.⁷³

International Financial Institutions

International financial institutions have also contributed to environmental destruction. Surprisingly, the World Bank and IMF do not add environmental stipulations to their structural adjustment plans.⁷⁴ In addition, the World Bank has created, funded, and imposed several economic programs on countries which are directly harmful to the environment. For example, the World Bank approved “an electric power sector loan” to finance several hydroelectric dam projects in Honduras, El Salvador, and Brazil which have been proven to be “uneconomic and environmentally harmful.”⁷⁵

The environmental destruction of Latin America has devastated Central American indigenous peoples. While their economic, political, social, and cultural marginalization began five hundred years ago, rampant environmental destruction of Latin America has become widespread in only the last fifty years. Destruction of the environment is a global problem as much as it is a local problem; thus, it requires a global solution and, according to Central American indigenous organizations, a global struggle.

Indigenous Resistance

While indigenous resistance and rebellions have proliferated in Central America for over five hundred years, the indigenous resistance of the globalization era is uniquely different from that of even its recent predecessors. Like the struggles of previous decades, indigenous resistance in the globalization era is motivated to gain autonomy for indigenous peoples and bring them out of poverty and towards a dignified existence. However, unlike their predecessors, this new type of struggle is designed to be non-violent, although violence has occurred. In addition, many

indigenous resistance movements of the globalization era are not directed towards the nation-state, but rather, against the global system and the theory of neo-liberalism.

According to the indigenous peoples, the reasons for the shift from a domestic to international focus of indigenous resistance include all of the complaints outlined previously in this chapter. Namely, the state is no longer the greatest oppressor of the indigenous people, rather the global system is. However, some academics have suggested otherwise. Alison Brysk, in the journal article, “Turning Weaknesses into Strength’s: The Internationalization of Indian Rights” concludes that the shift occurred

*because indigenous social movements were weak domestically; some of their domestic weakness actually facilitated transnational alliance building and effectiveness.*⁷⁶

Thus, according to Ms. Brysk, the global system serves, not as the oppressor, but as the liberator of the indigenous peoples. The indigenous peoples embraced a global struggle because the new international system empowers their domestic struggle. Chapter Two will further examine the global empowerment indigenous peoples achieve by embracing the global system. First, however, the following section studies two Central American indigenous resistance movements of the globalization era: the Mexican Zapatistas the Council of Popular Indigenous Organizations (COPIN). This new type of struggle attempts to bring creative solutions to the overwhelming problems exacerbated by globalization.

Mexico: The Zapatistas

The *Ejército Zapatista de Liberación Nacional*, known by English speakers as the EZLN or the Zapatistas, is by far the most powerful and successful indigenous movement in Central America. Today, the Zapatistas are in their “nineteenth year of struggle and in the ninth year of a war against forgetting and lies.”⁷⁷ For the first ten years, the largely peaceful struggle to obtain indigenous rights throughout Mexico went unnoticed. It wasn’t until the Zapatistas began the

“war” on January 1, 1994, that Mexico, and the world, finally stopped to listen to the indigenous peoples of Chiapas, Mexico. As mentioned before, the uprising was in a direct response to the North American Free Trade Agreement scheduled to be effective that day. Thus, by the time of the 1994 uprising, the Zapatistas had added an international flavor to their struggle. Instead of simply fighting for indigenous rights within the Mexican political system, they began a campaign against globalization and its neo-liberal institutions.

The “war” that began on January 1, 1994 was not really meant to be a war at all. Early in the morning, hundreds of indigenous peoples marched into the highlands of Chiapas to peacefully take over seven cities.⁷⁸ The response from the Mexican government was, “massive militarization of the region, which included bombing, imprisonment and the disappearance of hundreds of civilians.”⁷⁹ The Zapatistas, in turn, issued a “call to arms”⁸⁰ and occupied 39 more villages in December of 1994 to protect the indigenous people.⁸¹

As a result, the Mexican government was forced to enter into peace talks with the ELZN.⁸² Finally, the Mexican government recognized the “forgotten” indigenous peoples, as “the issue of the rights of indigenous populations became a central issue in the political life of the country.”⁸³ The Mexican government was also obligated to turn years of false promises and “lies” into truths through the San Andrés Accords. The San Andrés Accords finally placed in writing the fundamental rights of the indigenous peoples of Mexico:

The State respects the self-determination of the indigenous peoples at every level in which they prefer a differentiated autonomy within the norms established for indigenous peoples, provided national sovereignty is not compromised. This implies the recognition of their identities, cultures and forms of social organization.⁸⁴

However, the government of President Zedillo rejected the accords in 1997.⁸⁵ The new Mexican government under Vicente Fox has not reached an agreement with the Zapatistas.⁸⁶

The Zapatistas cannot be ignored. One thousand one hundred eleven indigenous communities continue to openly resist the political control of the Mexican government. There are now thirty two autonomous municipalities and five regional capitals in Chiapas run exclusively by indigenous populations with little intervention by the Mexican government.⁸⁷

Although the indigenous peoples of Mexico have not achieved all of their political goals in Mexico, they have succeeded in securing several indigenous autonomous regions and continue to fight for indigenous rights and recognition both within Mexico and around the world. In addition, the Zapatistas continue to focus more efforts on the global struggle. In 1997, they sponsored the first “International Encounter for Humanity and Against Neo-Liberalism.”⁸⁸ This conference inspired indigenous organizations all over Central America to further their struggle for rights and dignity. It also inspired many to extend their struggle to the fight against globalization. It was at this conference that the Zapatista leader Sub commander Marcos announced that the “most evil, dangerous institution in the world today” is the WTO.⁸⁹ As a result, other indigenous organizations have joined in the struggle against neo-liberalism and have held two more International Encounters.⁹⁰

The Zapatistas believe, like many indigenous peoples, that the injustices they face in their own nation are driven by globalization and the neo-liberal forces that control their governments.⁹¹ As a result, the fight against globalization is a fight for indigenous rights.

Honduras: COPIN

The Zapatista movement in Mexico has inspired the Council of Popular Indigenous Organizations (COPIN). Shortly after the Zapatista uprising in 1994, members of COPIN began a series of pilgrimages, or marches, from their homelands to the capital Tegucigalpa.⁹² To date, there have been eight pilgrimages with over 5,000 participants. According to the COPIN leader,

Berta Isabel Cáceres, the pilgrimages are designed to “manifest our problems and proposals to the government and other institutions that in some way affect the development of indigenous communities.”⁹³ Like the Zapatistas, in addition to fighting for indigenous rights within Honduras, COPIN has also extended its reach to fight for the rights of other Central American indigenous groups who face hardships due to globalization.

COPIN’s primary goal is to obtain autonomy for the indigenous peoples of Honduras through the recognition of several indigenous municipalities. The Council hopes to achieve recognition through their pilgrimages to Tegucigalpa and by “reclaiming” idle land. However, most of these domestic initiatives have failed to produce results. While the Council may not have concrete achievements, Berta Cáceres writes:

Internally we have achieved profound changes because we have come to realize that we have value, that we have strength, and that we even have power – the power to decide to take up the struggle for our own rights.⁹⁴

Perhaps, this spiritual achievement will motivate the indigenous peoples of Honduras to continue to organize and fight for their rights and dignity despite numerous disappointments.

Certainly, COPIN has a sense of a spiritual connection and shared purpose with other Central American indigenous peoples. In fact, the negative impact of transnational corporations on the indigenous peoples of Honduras, and the knowledge of similar transgressions in neighboring countries, encouraged COPIN to embrace the tools of globalization in order to broaden their regional struggle to a global struggle. Berta Cáceres is convinced that the Council of Popular and Indigenous organizations “can make a great contribution to the development of indigenous peoples, not only in Honduras, but throughout the world.”⁹⁵ As a result, COPIN has declared an extension of their struggle to include a “struggle against neo-liberalism.”⁹⁶

In an effort to achieve solidarity with other indigenous organizations in Central America, COPIN has taken on the cause of their neighbors in El Salvador. As a result of the World Bank's plan to build a dam that will displace 60,000 indigenous families, COPIN is working across the border with Salvadorian indigenous organizations.⁹⁷ Thereby, the indigenous organization provides a transnational response to the transnational economic forces.

COPIN has also supported several international conventions against globalization such as the "International Encounter For Humanity and Against Neo-liberalism" and the "50 Years is Enough" campaign against the IMF and the World Bank.

Other Indigenous Resistance Movements

Most indigenous organizations in Central America are not as large and organized as the Zapatistas and COPIN. Indigenous organizational structures in Central America tend to consist of loose federations between several, even hundreds, of indigenous communities, often creating a very diverse association.⁹⁸ In fact, the Zapatistas and COPIN are both composed of several smaller indigenous communities united under a single cause. Many indigenous organizations in Central America, however, consider globalization and the neo-liberal system to be an enemy and regularly send delegates to attend conferences such as International Encounter For Humanity and Against Neo-liberalism, the 50 Years is Enough campaign, and the People's Summit of the Americas.⁹⁹ Certainly, virtually all Central American indigenous organizations engage in some form of domestic struggle for empowerment.

Through globalization, especially through the use of globalizing information technologies, it is likely that indigenous organizations will increase cooperation amongst themselves and with each other because globalization makes it increasingly easier to mobilize support across physical, political, and cultural divides.

Chapter Two: The Empowerment of the Globalization of Communication

Globalization increases indigenous peoples' ability to communicate. "Old" technologies, such as fixed-line telephones, fax machines, radios, and airline travel, have, as a result of globalization, become more accessible to indigenous peoples in the far-reaches of the world. In addition, digital technologies, including personal computers, e-mail, the Internet, and digital telephones, also are available to indigenous peoples at increasing rates because of globalization.

The "old" technologies enable indigenous peoples to better their domestic economic, political, cultural, social, and environmental situation through greater communication. More importantly, however, digital technologies have the potential to empower indigenous people and improve their overall status in the new global system, in addition to bettering their domestic situations. Several scholars have noted the "rapid growth and volatility, if not turmoil, of the evolving IT sector".¹⁰⁰ This apparent chaos presents unprecedented opportunities for traditionally marginalized peoples because the digital realm itself is "developing" and has not yet established an "elite" or a "marginalized" population. Indeed, the International Labor Organization (ILO) reports the information revolution "will clearly be a 'steerable revolution', in which wise policies and appropriate institutions will be essential toward directing change toward the greatest public good."¹⁰¹

In fact, indigenous access to communication technologies might be more than empowering; it might be necessary for indigenous survival, development and advancement. The Mayan Council for Communication in Sololá, (El Consejo de Comunicación Maya de Sololá) believe:

that Access to Communications Technology is one of the most basic of human rights, because it provides a more equitable means to all other human rights and necessities...

[and] that providing access and training in basic Internet services is a necessary step in allowing local populations to develop in all other areas, including grassroots commercialization of local products, education: quality and opportunity, health: awareness and real resources, and cultural expression and preservation.¹⁰²

Certainly, the International Labor Organization warns that in the information technology era “passivity will lead to marginalization.”¹⁰³ By embracing global technology, and establishing their presence in the digital world, indigenous people may find that they have a role which is not marginalizing, but empowering.

Economic Empowerment

It is advantageous for developing regions, like Central America, to embrace globalizing technologies in order to improve their economic condition. Those developing countries characterized as “globalizing” reported a per capita income increase of five percent a year during the 1990’s. In the same period, all other developing countries recorded a per capita income decrease by one percent.¹⁰⁴ In addition, the ILO reports that “telecommunications are positively correlated with economic growth.”¹⁰⁵ By embracing both “old” and digital communication technologies, indigenous peoples can improve the profitability of their current economic enterprises, begin their own e-businesses, or find jobs in the information technology industry.

“Old” Technology and Commerce

Even without access to digital technologies, indigenous peoples in all occupations, from farmers to small business owners, rely on recently available communication technologies to enhance their economic condition. In fact, most indigenous small business owners and farmers in Central America who make use of information technology utilize only “old” technologies, including telephones, fax-machines, and radio.

In *A Handbook for Entrepreneurs in Developing Countries*, Richard Duncombe and Richard Heeks discuss the advantages of embracing the technology of telephone and fax

machines. Some suggestions include utilizing the telephone “to make appointments with potential customers, or to make your first introduction,” as “a direct marketing tool,” to “obtain information from suppliers or to arrange collection of materials,” and to keep “existing customers up-to-date and informed, and to send product/service literature, price lists and quotations.”¹⁰⁶

Many indigenous communities already maintain telephone (and perhaps fax) centers, which are accessible to business owners and farmers. In addition, there are several viable options for those without money or access to personal telephone and fax facilities. Duncombe and Heeks suggest low cost communication solutions, including

- Try contacting business support organizations in your locality. There may also be non-governmental organizations (NGOs) offering business support.
- One may be able to use a telephone belonging to a friend or family member.
- A local small business may be able to provide use of a telephone/fax.
- Think about sharing the costs of a telephone connection with another business.
- Public payphones can be used to receive messages and make calls.¹⁰⁷

However, Duncombe and Heeks recommend that, if financially feasible, business owners obtain personal telephone and fax connections in order to “avoid leaving his premises” which poses the “danger of losing customers.”¹⁰⁸ A personal connection “would also mean more satisfied clients” because it is far easier to reach a businessperson on his or her own connection.¹⁰⁹

Radio technologies offer another inexpensive and invaluable alternative to indigenous entrepreneurs. In fact, “radio is probably the IT most accessible to ... farmers in developing countries.”¹¹⁰ Radios enable farmers to communicate with each other regarding a number of important issues, including coming storms and various market prices.

Indigenous peoples engaged in commerce of any kind can utilize the Internet to enhance their knowledge, productivity, customers, and thus, profits. Hafkin and Taggart note, “the potential is not limited to companies with sophisticated web sites, or to customers with credit cards and electronic banking. There are many ways of using the Internet to do business ... Small businesses everywhere are exploiting the opportunities.”¹¹¹

One of the most beneficial features of the digital technology is its potential to provide a wealth of accurate information. Many indigenous peoples “tend to rely heavily on informal information (from friends and family) that may be inaccurate.”¹¹² However, through the Internet, indigenous entrepreneurs obtain formal and accurate information, including

information about supply (obtaining inputs), demand (new and existing customers), finance (business management and obtaining additional finance), the environment in which they are doing business, and skills.¹¹³

The Internet also provides important information concerning “new production technologies” and enables the entrepreneur to engage in market research on existing and new export markets.¹¹⁴ These potential export markets include international opportunities, which enable indigenous peoples themselves to become transnational.

Accurate information is especially important to farmers because there is a “paucity of information resources available” to rural indigenous farmers.¹¹⁵ Nancy Hafkin listed the numerous benefits information technology provides to rural farmers, including

guidance on where and when to sow, harvest, and market their produce to avoid having to off-load their goods at throwaway prices ... information on improved farming technologies, access to credit, agricultural inputs, transportation systems, product potential, new and environmentally sound production techniques and practices, new markets, food preservation and storage, trade laws, trends in food production, demand, and processing ... improved seeds, alternate crops, and weather.¹¹⁶

In addition, indigenous farmers can utilize information technology “to exchange indigenous knowledge.”¹¹⁷

Farmers do not even need to be computer literate to access this technology. The International Labor Organization notes “the illiterate farmer can also gain from greater access to information.”¹¹⁸ If there is a local community computer center, any literate member of the community can be utilized as an “information intermediary” who “assist[s] the farmers in two-way communication, delivering their messages transmitting indigenous knowledge, requesting agricultural advice, and sending e-mail from the farming community to the research station.”¹¹⁹ In addition, indigenous communities without Internet access can employ any local children attending school with computer access as their “information intermediaries.” Engaging school children in this manner also has a social advantage because it “might stimulate them to consider remaining in rural areas and taking up modern farming as a career.”¹²⁰ Thus, the community obtains the additional advantage of reducing the potential brain drain in the community.

There exist several information websites directed primarily at providing information to businesses in Latin American. For example, *Mujer y Negocios*, (Women and Business) provides knowledge concerning uses of information technology in business, in addition to providing general business information, such as markets and resources.¹²¹

Digital technologies provide indigenous peoples with means to increase the productivity of their existing business or farming enterprise. Information technology can “reduce administrative costs, speed up business transactions and link local businesses with supply chains.”¹²²

Digital telephones increase productivity by making contact with distant customers and suppliers instantaneous because they provide international coverage (including use of the phone

outside of the country), message services and voicemail, text messaging services, and some even have access to email and the Internet.¹²³ In addition, “answering a call immediately, rather than responding later, could make the difference between winning or losing an order.”¹²⁴

Computers with business software also increase productivity. Business software enables business owners to manage information and administer the business more effectively through word processing, spreadsheets, bookkeeping, invoicing, and stock control. The computer is a digital file cabinet and organization tool which serves “to keep internal records in one place, to print those records easily, and to analyse those records.”¹²⁵

In addition, email enables entrepreneurs to remain in contact with customers. Through email, business owners can contact several customers at one time. Email, “allows a variety of information to be sent – not just messages but documents, photographs, drawings, or any other computer data file.”¹²⁶

Offline, email operating programs offer yet another organizational tool; “messages can easily be recorded, to keep a record of correspondence, Messages can easily be organized ... by building up an address book. Messages can be protected from outside view. [And] services can be accessed by the entrepreneur while away from the office.”¹²⁷

Business owners can further increase their productivity through the Internet by performing virtually all banking, bill paying, and credit charges through online web portals. Websites also offer businesses another means to reach customers. Benefits of a website to any small business include twenty-four hour global presence, a professional image, the ability to update frequently, and direct communication with international customers and potential customers.¹²⁸

Currently, the Internet is a global free trade zone; there are few, if any, regulations. However, unlike NAFTA or the WTO, transnational corporations do not dominate the Internet free trade zone; it is not dominated by anyone. In fact, most Internet companies were started by people with very little means and a few good ideas. E-businesses, defined here as companies which sell products via the Internet, provide vast opportunities for indigenous peoples looking for creative solutions to their economic problems.

E-business presents a viable business option for indigenous peoples because it is accessible, even to rural, uneducated, and poor peoples. Rural indigenous peoples often find it difficult to engage in entrepreneurial enterprises because they lack access to cities, markets, and suppliers. However, the Internet's potential to exist anywhere enables rural indigenous peoples to participate in business, and even extend their business to the once far reaches of large cities, both in their home country and throughout the world. In addition, "there are no educational prerequisites"¹²⁹ for establishing an e-business. In fact, many important business and marketing skills can be obtained online.

Further, many indigenous peoples lack the capital necessary to establish a business. Fortunately, it is possible to establish e-businesses with little overhead; especially in communities who already maintain a computer and Internet connection. However, many indigenous communities will incur start-up costs while securing and maintaining the minimal supplies for an e-business. According to Richard Heeks of the UK Department for International Development, e-business supplies include a fixed-line telephone, a mobile phone, a fax machine, a personal computer with e-mail, Internet access, and a website. These costs calculate to approximately one thousand US dollars per community per year in developing regions.¹³⁰

Although these costs appear immense for poverty stricken communities, the potential profits and benefits from an e-business outweigh the start-up costs. In addition, several programs, such as the Digital Freedom Initiative,¹³¹ provide the initial funds and supplies necessary to people in developing nations who desire to begin an e-business.

Some e-business strategies are more successful for indigenous communities. For example, e-business directed at international and wealthy customers are far more likely to overcome the initial overhead expenses and produce profits than e-businesses designed for a local market.¹³² In addition, goods produced locally reduce costs and limit dependence on suppliers. Locally produced goods and cultural artifacts also provide indigenous peoples with a “an unassailable competitive advantage”¹³³ because the supply is limited. Other highly successful e-business products include non-physical goods. For example, indigenous persons can initiate a tourism e-business,¹³⁴ wherein international tourists book and pay for tours of indigenous sites online before arriving at their destination. Profitable e-businesses also included those “whose products/services can be converted to digital data – such as in printing and publishing, music and video publishing, software, and professional and consulting services.”¹³⁵

There are already several websites selling goods to wealthy Northerners looking for exotic gifts. One example is ArtCamp (the anglicized name for the web page called *Artesanas Campesinas*, or, peasant artisans), an e-business developed and operated by indigenous women in Tecapulco, Mexico.¹³⁶ On their website, the women offer a great variety of products, including traditional indigenous crafts and commercial manufactured items: a wide array of jewelry, candle holders, belts, runes and zodiacs, lighter covers, Aztec calendars, USA flags, Christmas ornaments, pill boxes, table tops, and animal figurines. In addition, the indigenous women sell digitized romance e-novels. The women are proud of their indigenous heritage,

stating, “our Ancesters come directly from the Aztec tribes ruling this lands.” Certainly, the fact that their goods are genuine and unique indigenous handicrafts provides them with a marketing advantage. Unfortunately, their e-business success is probably one of the few times in the past five hundred years that being indigenous has been to their advantage. Perhaps, the indigenous peoples of Central America will find the information technology economy empowering.

Outsourcing

Just as many manufacturing corporations move their businesses to Central America to cut costs, many information technology companies have begun to move their operations abroad and into developing regions like Central America. This “relocation of information intensive jobs from high-wage countries to developing countries” is often referred to as “outsourcing.”¹³⁷ As a direct result of outsourcing, several million, often well-paying, information technology jobs will develop in Central America.

According to the International Labor Organization’s “World Employment Report 2001” information technology companies intend to relocate millions of IT jobs to developing nations:

5 per cent of all service-sector jobs in industrialized countries could be “contestable” by developing countries. This would amount to about 12 million jobs in which relocation to developing countries could occur.¹³⁸

It is estimated that the size of the international outsourcing industry is 103 billion US dollars.¹³⁹

However, unlike the *maquiladoras*, which primarily employ unskilled laborers, a wide variety of information technology jobs relocate to Central America; including many jobs which offer higher pay rates and are geared towards skilled and educated workers. While information technology “replaces old tasks and occupations through automation, such as the telephone switchboard operator,” it creates many “new tasks and occupations, such as Webpage designers

or call-centre workers or a variety of new intermediaries.”¹⁴⁰ Some of these new “intermediary” positions include

call centers, performing back-office functions, data conversion, medical transcription, content development, deposition summarizing, insurance claims processing, GIS, and networking.¹⁴¹

Information technology outsourcing also includes low end positions such as “data entry and data capture,” and high end positions such as “software programming.”¹⁴² The variety of jobs and pay-scales available provide a potential source of economic empowerment for indigenous people.

The variety of jobs is especially important for the educated, who often retain menial occupations because no better alternatives exist. Outsourcing has already helped the educated in Costa Rica obtain better jobs since Intel relocated a semiconductor production factory there because it desired to utilize Costa Rica’s highly educated workforce.¹⁴³

Outsourcing jobs have the potential to become very popular in Central America. In fact, “as IT usage increases in developing countries, the design and maintenance of the fundamental IT components will become among the most valued occupations.”¹⁴⁴ With more people working for IT outsourced jobs, the overall knowledge of information technology in the developing world will increase. In addition, information technology “jobs can provide developing countries with an important toehold in global export markets, as well as providing direct employment and foreign exchange earnings.”¹⁴⁵

While most outsourcing jobs will be located in cities, far from most indigenous populations, information technology offers the unique opportunity to “allow companies to source work independently of location.”¹⁴⁶ Thus, it is possible for indigenous peoples to engage in source work jobs from home or in their native region.

Political Empowerment

In his book, *The Control Revolution*, Andrew Shapiro writes, “political outcomes are made solely by technology.”¹⁴⁷ The technologies of globalization are rapidly giving more political power to all individuals who utilize it, including previously powerless indigenous groups.

“Old” Technologies: Political Empowerment of Organizations

As older technologies, including telephones, fax machines, radios, and airline travel become more accessible to people in the rural regions of Central America due to globalization, indigenous organizations increase their ability to communicate, and, thus forward their cause.

In recent decades, the increased accessibility of fast, affordable travel has enabled indigenous leaders to travel to various regions of the world to lobby for their cause. For example, in April of 2002, leaders from several indigenous groups, including COCOCH of Honduras, the *Coordinadora Nacional de Organizaciones Campesinas* of Guatemala, and the *Comissão Pastoral da Terra*, Brazil, arrived in Washington, DC to participate in a variety of fundraising and educational events such as the International Seminar on the Negative Impacts of World Bank.¹⁴⁸ The indigenous leaders were able to attend the conference because of the forces of globalization. The growing interconnectedness of world markets, politics, and travel increased demand for international travel and thus encouraged airlines to add more direct international flights. In addition the indigenous leaders incurred relatively inexpensive travel and accommodation fees due to the competitive market. Also, because of globalization, there were limited restrictions on travel across borders into other sovereign nations.

Globalizing communication technologies make it increasingly easy to mobilize collective political action quickly and effectively. Even without Internet access, indigenous organizations

can reach out to their members and to the world through “fax servers, phone trees and fax trees, discussion lists, and connections with traditional media.”¹⁴⁹ Despite the fact that many indigenous organizations have Internet access, many of their constituents may not. As a result, the “old” technologies are often the most effective means of communication within indigenous organizations.

Digital Technologies and Organizations

Digital technologies, especially the Internet, have enormous potential to empower indigenous organizations. Like the “old” technologies, digital technologies are useful for increasing communication within an organization. However, when organizations want to disseminate information around the world in order to gain support for their cause, the advantages of digital communication technologies are innumerable.

The Internet increases effective communication within an organization because information can be quickly distributed to many people. The Internet is a “many-to-many” technology in which many people are able to talk to many others at the same time.¹⁵⁰ The “many-to-many” features of the Internet include email, conferencing, chat rooms, and web pages. Through these forums, members of indigenous organization can disseminate information, make group decisions, and coordinate activities and events from great distances.

Internet encryption technology also has the potential to empower organizations. If one is able to encrypt information, then he is able to “keep secrets from government.”¹⁵¹ Thus, organizations are able to organize events, plan meetings, send documents, write manifestos, and the like, without the knowledge of the government. This information can be passed easily around the world without worries about interception and censorship.

Global communication through the Internet makes it increasingly easier for organizations to attract the money and support needed to succeed. Through the Internet, the Zapatistas have reached a total of over two million visitors and have gained support both politically and financially from all over the world.¹⁵²

Politically Empowering Individuals

As globalization lessens the power of states, it increases the power of individual human beings. The Internet empowers individuals in several different ways. It is a “radical shift in who is in *control* – of information, experience, and resources.”¹⁵³ Individuals who peruse the Internet are able to find information that may have been inaccessible before. For example, “information that was once parceled out exclusively by the state,”¹⁵⁴ and information that has been banned by the state, can be accessed on the Internet with little chance of punishment. At this point in history, governments who vainly attempt to censor the Internet have failed.

In addition, many poorer peoples may never have access to complete libraries and a vast compilation of books. With today’s technology, a person needs only a single Internet connection to have access to many of the world’s most prestigious library collections. Through the Internet, the individual, not a state or a lack of resources, is in control of what he experiences.

E- governance

Indigenous peoples and organizations use digital technology to further their participation in their governments. Increasing citizen participation and improving governance by applying information technology is sometimes called “digital or electronic governance (e-governance), a process that is also described as electronic democracy.”¹⁵⁵ While the term “e-governance” is not meant to imply that Internet users may one day govern their nations, it does presume that Internet use gives traditionally marginalized peoples a new found voice in their national policies.

Certainly, the Internet provides knowledge which enables indigenous peoples to be more informed voters, enables organization to correctly and effectively petition the government, and makes the government more accountable.

The Internet provides information about politics and the political system of which many indigenous people are unaware because they often live in rural and secluded areas. For example “through government web sites” one can “learn the names of local officials, their roles and responsibilities, and the working hours of government offices.”¹⁵⁶ In addition to “official” information on governmental websites, through the Internet, indigenous peoples have access to wealth of information concerning political practices in general, both at home and abroad. With this information, indigenous peoples could further engage in governance and gain information which helps them to become more informed voters.

Consistent information flows between citizens and their government will make government more accountable. Governments and citizens who use the Internet for communication are more likely to engage in democratic practices because information technology maintains several of the characteristics of democracy including, “being decentralized, pluralistic, democratic, and empowering rather than controlling, and ... foster[ing] debate.”¹⁵⁷

Political Rather Than Violent Solutions

The Internet enables indigenous organizations to disseminate information peacefully in order to bring attention to their struggle. The Internet is a highly effective distribution tool because it relays information precisely and without a middleman.

The Internet is digital; by using only combinations of 0s and 1s, items sent over the Internet are received precisely as they were sent. Unlike messy faxes and distorted voices over

telephone lines, digital facsimiles are identical to the original. As a result, messages can be passed easily and without distortion.

The elimination of the middleman ensures that items will not be censored and that they are able to travel directly to their destination with little or no time lapse. It also cuts down on costs, making information sharing inexpensive and, therefore, more accessible to the poor and marginalized.

Because it sends precise information directly, the Internet provides the “instant ability to spread your unexpurgated words... to the four corners of the earth.”¹⁵⁸ As a result, indigenous organizations are able to inform millions of their struggle without a single act of violence. Unfortunately, most struggles do not receive media attention until “starvation becomes famine, ...torture become genocide, ...racist persecution becomes mass expulsion, and religious conflict becomes civil war.”¹⁵⁹ However, with very little bloodshed, the Zapatista website has had over two million visitors from all over the world.¹⁶⁰ Paiaken, a leader of the indigenous Kayapo tribe noted this shift to non-violence, “in the old days, my peoples were great warriors. Now, instead of war clubs, we are using words.”¹⁶¹

In this regard, the Internet is a beneficial tool in conflict prevention and resolution. Paul Collier noted that sometimes “rebel groups may even hope for government atrocities because the atrocities then fuel grievances.”¹⁶² With more atrocities and more grievances, more attention is given to the plight of the insurgent groups. However, with advances in technology, grievances can gain attention without the atrocities.

Social Empowerment

Globalization, especially the globalization of communication, has the potential to be empowering for all marginalized social groups. There are two reasons why traditionally

marginalized groups are less likely to be discriminated against in the global information system. The first relates to neo-liberalism's democratic precept, which stresses that everyone, citizens, groups, and individuals, should be treated equally. The second is the anonymity of the Internet. While roaming the Internet, one does not have to take on a specific gender role, sexual orientation, business persona, nationality, ideology, or marital status. In addition, if one desires to reveal any information about himself, he may identify himself with the gender, age, nationality or occupation of his choice. As a result, it becomes very difficult to discriminate against a person for any social reasons.

Indigenous peoples will discover several potential sources of social empowerment in globalizing communication technologies. First, there is considerable potential for the empowerment of women through information and communication technologies. Secondly, information and communication technologies have the potential to better indigenous social conditions in the realms of social services such as education and health. The International Labor Organization reports:

technologies can make governments more transparent, extend their services more broadly, and at lower cost, the poor could benefit from the improved quality and reach of health, education and social services.¹⁶³

Women

Women especially benefit from the globalization of information technologies. The information technology sector has produced more jobs conducive to women, and the Internet is a burgeoning forum of solidarity and support for women's rights and needs.

While the "old" economy tended to offer primarily marginalized occupations for women, especially indigenous women, the "new" economy of information technology provides several excellent jobs which are gender neutral, or even geared specifically towards women. In the

Hafkin and Nancy Taggart report:

At the same time that information technology (particularly through automation and robotics) is making many women's manufacturing jobs redundant, it is creating other jobs that are largely taken by women in the service industries, in information processing, banking, insurance, printing, and publishing where the skills requirements are higher than in the first phase of manufacturing jobs.¹⁶⁴

In addition, Hafkin and Taggart explain that in the information technology sector, women are less likely to be discriminated against, “networking instructors in Mexico, South Africa, and the Middle East noted that discrimination against women based on stereotypes of the physical demands of work was becoming much rarer.”¹⁶⁵

The information technology sector also provides jobs seemingly ideal for indigenous women living in rural areas: telecommuting. Several telecommuting options exist for indigenous women including, establishing one's own e-businesses, working for an outsourced transnational corporation, or working at the local community communications center. These occupations provide options for women who desire to work close to home, or perhaps even in the home. The International Labor Organization's *World Employment Report 2001* commented on this empowering phenomenon: “Women are often thought to benefit from the new independence of work location. In some ways, this is clearly the case: working from home, for example, can allow a better accommodation of work and family schedules.”¹⁶⁶

Information technologies, especially the Internet, provide a forum for women's solidarity and support. Hafkin and Taggart report that information technology “enables women to find allies across communities, nations, and regions. The technology also helps them expand their horizons and help them feel that they are part of a larger process.”¹⁶⁷

Several networks of Central American women, including indigenous women, utilize information technology to expand their cause. For example, the Modemmujer network maintains a “personalized relationship with approximately 400 women’s organizations, activists and academics in Latin America.”¹⁶⁸ Modemmujer’s networks is specifically designed for poorly funded, rural, or indigenous women’s organizations. Modemmujer intends on

creating a safe, intimate, affectionate personal space for women to explore what the Internet has to offer them. Rather than flooding low-resource organizations with an overwhelming quantity of content, Modemmujer offers a list of events, announcements, documents and analyses from the NGO and academic women’s community... Modemmujer’s idea is to make information sharing easy and low-cost, and to encourage women’s use of information and communication technology tools, offering step-by-step instructions to women on how to use newsgroups or surf, or simply on how to receive an attached file.¹⁶⁹

However, beyond being a forum and an educational tool for women, Modemmujer is also actively involved in working for women’s rights in Latin America. In 1997, Modemmujer began an e-mail campaign to free Claudia, a Mexican women who was in jail for defending herself against a rapist. The resulting mobilization of women’s organization throughout both North and South America resulted in a flood of support; both digital and traditional letters arrived in Mexico city and several women arrived at the courthouse in protest. Claudia was released. While Modemmujer claims that “Internet did not free Claudia” the case demonstrates that “at least in Mexico, Internet now plays a key role in women’s strategizing.”¹⁷⁰

Fortunately, Modemmujer is not the only networking forum and activist group for Latin American women. Other information technology networks engaged in social reform for women include the Association for Progressive Communication Women’s Networking Support Programme,¹⁷¹ LaNeta (slang for “the truth” in Mexico),¹⁷² and Women’s chnProgramme (*Área Mujeres*) of the *Agencia Latinoamericana de Información* (ALAI).¹⁷³ Through the Internet,

women, especially indigenous women, find that there are many voices united in their struggle for equality – and that is empowering.

Education

In regards to education, as it has already been demonstrated in the previous sections of this chapter, the Internet provides vast amounts of information which is readily accessible to indigenous populations with Internet access. In addition, educational systems can utilize information technologies as teaching tools in the classroom and as a device to train teachers. Brandon McKelvey, a wireless communications expert, believes that it will in fact be less expensive and more conducive to start filling classrooms in indigenous communities with the Internet than with a small library of books.¹⁷⁴ Thus, the Internet will provide more students with access plethora of information and has the potential to rapidly increase education levels in indigenous communities.

In Guatemala, the Enlace Quiché project utilizes information technology tools to “improve teachers' training and provide in-service teachers with tools and resources to teach more effectively.”¹⁷⁵ More importantly, the Enlace Quiché project specifically embraces the native Mayan students, culture, and language. The use of information technology enables educators to realize Enlace Quiché's vision

That the Mayan community may receive a quality education with linguistic and cultural pertinence, facilitated by an educational community that has at its disposal technology centers and abundant bilingual educational resources.¹⁷⁶

Currently, Enlace Quiché operates twelve centers which, among other things, train teachers in general pedagogy, in addition to increasing their knowledge and understanding of Mayan linguistics and pedagogies, and continue to create and maintain a digitally formatted text of Mayan language, culture and educational materials.

Enlance Quiché aims to end the centuries of Mayan social oppression. Remarkably, social empowerment through increased education can be achieved by utilizing empowering information technologies.

Empowering teachers and other education professionals to create their own teaching materials has the potential to break out of the cycle of low Mayan-language literacy levels due in part to the lack of available reading material. Also, the project sees a virtual community of bilingual educators who support each other via an Internet portal and use of e-mail.¹⁷⁷

Throughout Central America there are several additional programs designed to improve education for marginalized populations by utilizing information technologies. The *Programma Actualizacion de Maestros en Educacion* (AME), which functions in Central America in Costa Rica, Mexico, and Panama, is designed to enhance educators' abilities to teach reading, writing, and mathematics, increase their knowledge of new technologies, and improve pedagogical methods. For students, the program teaches citizenship and social skills, critical reading and writing, and knowledge of the Internet, computers, and other information medias.¹⁷⁸

Health

The Internet provides a great amount of information concerning health and health care, much of it specifically geared towards Spanish speakers, Latin Americans, and people in developing regions. Some useful websites include the *Confederación Iberoamericana de Medicina Familiar*¹⁷⁹ (The Iberian-American Association of Family Medicine), *Impacta: HIV/AIDS Prevention Clearinghouse*¹⁸⁰, and BIREME¹⁸¹ (Biblioteca Virtual en Salud/ Virtual Health Library).

BIREME provides an excellent example of a Latin American based health web portal which provides vast amounts of valuable health information and resources. The databases and links on the portal include, among many others, scientific literature, a health information locator,

and explanations of health terminology. Certainly, the resources on this site are of value to Central American indigenous populations as well. BIREME maintains country specific pages encompassing Mexico, Honduras, and Costa Rica. Each country site provides information concerning the local health sector. The Costa Rica site has 118 links to local health institutions and information including, but certainly not limited to, the Association of Costa Rican hospitals, the Legislative Assembly, The National Library of Health and Social Security, the Center for Tropical Science, the National Institute of Women, the Medical College of Costa Rica, and the National Children's Hospital.¹⁸² The Honduran site has six such links to the local health sector. Of course, the country specific pages also provide valuable information on health care for laymen and doctors alike. From scientific journals to explanations of virtually every medical condition and terminology to articles relating local health concerns, indigenous peoples in Central America need simply to log onto the Internet to better understand and improve health in their society.

In addition to the Internet, and all of the vast health information it provides, email, PDAs, and digital phones provide indigenous peoples with access to better health care. Modemmujer utilizes email to ensure that their constituents are informed about health related issues in Mexico. In fact, the women's network launched an email campaign to find claimants for a lawsuit against the Mexican State health care system for such grievous crimes as involuntary sterilization. Once the trial began, Modemmujer kept its constituents updated as to the happenings.¹⁸³

Personal Digital Assistants (PDA) have provided important health resources in developing regions. The Community Access to Sustainable Health (Ca:sh) project utilizes "handhelds loaded with a database of patient records to enable local paramedic workers to quickly and

accurately collect patient information, and often make on-the-spot diagnoses based on the patient's medical history."¹⁸⁴ The HandyVaid initiative involves

A representative carrying a PDA through the village collects information and queries from the villagers using a pre-designed consultation form. This information is then transferred to a doctor in the city, who diagnoses the problem and suggests appropriate treatment, precautions and medication. The doctor's diagnosis and suggested treatment is then once again transferred to the PDA and carried back to the villager.¹⁸⁵

Digital phones have also been widely used to improve health in developing regions. In Peru, "the Voxiva Health Alert and Reporting System uses the phone network to integrate remote health centers into the national disease reporting network."¹⁸⁶ The Videophone Telemedicine Project "uses low-cost videophone equipment to enable local doctors to consult with specialists in major hospitals over conventional telephone lines."¹⁸⁷

Case Study: The Mayan Council for Communication in Sololá

The Mayan Council for Communication in Sololá attempts to strengthen all aspects of indigenous society by empowering indigenous people with information technology. This case study provides a hopeful example of an indigenous community exhibiting social progress in the arenas of female empowerment, health, and education through the introduction of a few information technology centers.

The Council's information technology project calls for "a network of rural Telecenters that provide community access to regional and international informations resources." Each Telecenter

will have its own dedicated satellite reception, the ability to connect for 24 hours a day and support 10 TO 40 computers on line, and each will be in a location chosen for its convenience to community users. The Sololá network could consist of from 10 to 20 independent and self-administrating Telecenters, strategically situated around the lake to provide the most practical use for the grassroots users in the region.¹⁸⁸

Currently, two of the proposed telecenters are operating in rural Sololá region of Guatemala. In addition to providing access to the Internet, the telecenters sponsor programs which actively promote Mayan social empowerment through information technology.

Once in operation, the telecenters' first task was to encourage "participation [among] indigenous Guatemalan women of various educational and economic backgrounds for technical training."¹⁸⁹ Two hundred Mayan women participated in the technical workshops and almost one hundred completed the training and received a diploma. The program empowered women in both "her personal education and career advancement."¹⁹⁰ Certainly, with the increased knowledge of information technology the women could advance their careers through earning higher paying outsourcing jobs, starting their own e-business, or utilizing digital technology to further their existing business and commercial activities.

In addition, empowering women often strengthens the social structure in general, and as a result, empowers indigenous communities and societies as well. Thus, the indigenous community also gained from the women's training program because it succeeded in

opening venues of dialogue and awareness concerning local development ... gender, ecology, Mayan culture, health and education ... acquiring resources - (for example, computers and cameras for a grade school) [and] providing a more direct contact with the international market and other opportunities for growth.¹⁹¹

The participating indigenous women are also able to further their society's advancement by disseminating the information technology knowledge they obtained in the training program. All of the women who completed the program are "prepared take on essential responsibilities such as: system functions and maintenance, trainers of local technicians [and] facilitators of interactive workshops."¹⁹² The telecenters also have planned educational and health projects.

Cultural Empowerment

It is difficult to maintain a cultural identity in the face of a homogenizing force like globalization. However, it is possible to utilize information technologies not only to maintain existing cultures, but also to disseminate vanishing cultures and discover lost cultures.

Personalization

One feature of the Internet is “personalization” which, according to Andrew Shapiro, “recognizes individuals’ desire for control.”¹⁹³ Personalization allows each person to customize the Internet according to his or her wants and needs. Internet users personally select what Internet sites they wish to visit. As a result, anyone desiring to avoid the US culture could potentially avoid US based websites and limit their Internet surfing to websites within their own culture. In addition, Internet users have the ability to create personal websites to disseminate whatever ideas, or cultures, they wish.

Personalization applies to most digital information technologies. Cellular phone and email users also personally select with whom they communicate, from whom they receive information (thanks to caller identification and email filter tools), and in the language of their choosing. As a result, cellular phones and email do not promote any culture over another. Email is also an invaluable dissemination tool. Indigenous peoples can communicate in their native language and send photographs, videos, and files via email. Thus, the information technology is not necessarily characterized by the homogenizing global culture, rather it is “culturally neutral”¹⁹⁴ and can be conducive to all cultures.

The Mayan Council for Communication in Sololá personalized their community information centers (or, telecenters) to the extent that the centers enhanced their distinctive indigenous culture. Each telecenter maintained a cultural center for community access which

offered “recordings, videos and web pages representing the cultural voice of Lake Atitlan.”¹⁹⁵ The telecenter also taught visitors methods of “preserving traditional handicrafts, ceremonies and ancient wisdoms in digital images.”¹⁹⁶

IT Disseminates Indigenous Cultures

While the mass media and other outlets of globalization push for homogeneity, the Internet “allows for a flourishing of diverse subcultures” and the ability “to preserve the language and traditions of vanishing ethnic groups.”¹⁹⁷ By creating websites that embrace indigenous culture, marginalized populations are able to share their culture and language.

For example, on the Guatemalan based website *EBI Guatemala* there is a plethora of information, news, and online library sources about the Mayan culture. Additionally, the website accommodates twenty-three Mayan linguistic dialects, in addition to Spanish, in which one can post messages, chat, or view documents and library materials. Not surprisingly, the subtitle of the website is “Aprendiendo desde nuestras culturas” (Understanding our cultures).¹⁹⁸

Another web page, called Maya Culture, displays “traditional storyteller's tales, Maya village life now ... [and] sounds, phrases, numbers.”¹⁹⁹ Visitors can read “41 tales, fables, myths and legends of the Q'anjob'al-speaking people of the Cuchumat'n Mountains of Guatemala” or a book by a modern Mayan author.²⁰⁰ The page also offers a guide to the Mayan numerical system, calendar, and pronunciation.

The Mayan Epigraph Database Project is a network of scholarship on Mayan languages. The database is accessible with an Internet connection and digitally preserves Mayan culture through preserving the Mayan written and oral languages. Visitors will find “relational database of glyphs (“gnumbers”), images, phonetic values (“pvalues”), and semantic values (“svalues”) ... Also present is the beginning of an archive of digitally transcribed Mayan texts.”²⁰¹

Not only does information technology enhance and empower indigenous culture through personalization and dissemination, indigenous cultural identity itself is a powerful force in the globalization era. Alison Brysk remarks “the international power of ethnicity [is] *a form of information* that has empowered a movement rich in identity but poor in everything else.”²⁰² In this age of seemingly increasing homogenization, unique cultures, such as indigenous cultures, are valued specifically for their difference and apparent cultural richness. North Americans and Europeans view indigenous cultures as “fascinating, exotic, and romantic.”²⁰³ In addition, non-indigenous peoples value indigenous cultures because they provide different *information* in the information technology era. This is apparent from the increases in eco-tourism and the desire to buy ethnic crafts on the Internet.

Indigenous peoples’ cultural empowerment also provides them with more access to global communication. In 1992, a journalist from a radio network at an international conference decided to report on the indigenous representative because of “the media appeal of the exotic languages being spoken.”²⁰⁴ Indigenous peoples also receive a great amount of attention, support, and resources from North American and European governmental agencies and non-governmental organizations specifically because these organizations value the uniqueness of indigenous culture and support continued cultural maintenance and dissemination.²⁰⁵

In addition, because they maintain similar cultures, once fragmented indigenous groups have united within themselves and with each other to overcome what they perceive to be a global threat on their identity. During the shift from an domestic to international focus of indigenous resistance, the “transnational mobilization of ethnic group or panindigenous identity could often overcome fragmented and even contradictory local identities based on village, clan, or class.”²⁰⁶

Thus, cultural identity itself furthers the empowerment of indigenous people because they are able to speak with one voice in the global communication forum.

While it is impossible to keep a culture precisely intact, globalization increases contact among cultures, and every culture will come out better, not worse, because of it. Certainly, many non-indigenous peoples benefit from the cultural contact with indigenous peoples who share their cultures over the Internet. Correspondingly, indigenous peoples benefit from contact with other cultures as well. It is often said that people “usually find their culture by leaving it.”²⁰⁷ Thus, those who engage with another culture are more likely to appreciate their own.

Environmental Empowerment

The Central American indigenous peoples have numerous opportunities to forward environmental preservation through the use of digital technologies. Information technologies provide indigenous peoples with a means to disseminate environmental information, network with environmentally conscience non-governmental organizations (NGOs), and provide economic support for the environment through eco-tourism.

Information Dissemination

Communication technologies enable indigenous peoples to disseminate information about environmental protection and highlight corporate and state sponsored environmental destruction. The Central American indigenous peoples retain a vast amount of environmental knowledge unknown to most beyond their society, including environmentalists. Communication technologies enable indigenous peoples to share their indigenous environmental knowledge with the world. Environmental activists have “realized that indigenous knowledge of fragile rainforests could help make the case for conservation and/or suggest alternative resource uses for sustainable development.”²⁰⁸ For example, RARE Center for Tropical Conservation researches

and compiles a wide variety of Central American indigenous environmental knowledge and disseminates it via its Internet website. Information provided includes, but is not limited to, parrots, butterflies, whales, macaws, doves, humans, jellyfish, rocks, and creating nature trails.²⁰⁹ Through the Internet and other information technologies, environmental activists around the world are able to communicate with indigenous peoples in order to learn this valuable environmental information.

Much of the environmental destruction perpetrated by transnational corporations is never reported. However, the indigenous peoples of Central America and elsewhere are able to expose corporate destruction of the environment through the Internet. Not only can the Internet disseminate information concerning environmental devastation to millions of people, it also enables indigenous peoples to post pictures of environmental destruction, so that people who may never venture to the Amazon can see its destruction first hand. In fact, there are several indigenous websites which include information and pictures concerning environmental destruction, including the Wanduk Yacháy Foundation Online.²¹⁰

Non-Governmental Organizations

Information technologies allow indigenous peoples to ally with environmental organizations who support their cause. In many situations, the environmental protection assistance offered by international organizations through the use of information technologies is more productive than local and national assistance. One North American environmentalist reported that “it is (physically and politically) easier for his South American Indian contacts to communicate with him than with (often urban based) environmentalist in their own country.”²¹¹ In addition, many international environmental organizations are located in the same North American or European countries in which corporate environmental transgressors are based. As a

result, unlike most local indigenous or environmental organizations, they can instigate political pressure in the North and forward environmental laws enforceable by the violator's home government. International environmental organizations are also able to foster political pressure within Latin America and the international community. Due to increased information technology, indigenous people find it easier to make contact and communicate with these international environmental advocates.

The Internet also maintains networks of indigenous organizations and environmentally concerned NGOs. One example is the Amazon Alliance.²¹² The Amazon Alliance links forty-one Latin American indigenous organizations with thirty-seven non-governmental environmental activists, including the Sierra Club, the World Wildlife Fund, and Earthjustice. The Alliance's mission statement stresses the importance of incorporating both indigenous and international action in order to protect the Amazon:

We recognize the importance of indigenous peoples' own activities and proposals for the management and conservation of the Amazon ... We seek to bring together a diverse association of institutions and individuals with a broad range of strategies, resources, expertise and perspectives to improve coordination of activities in support of the peoples of the Amazon.²¹³

Notably, the mission statement also includes the clause "We recognize the need for disseminating information, conducting studies and projects to advance the territorial and societal rights of indigenous peoples."²¹⁴ Most disseminating and collecting information occurs through the use of information technologies; demonstrating the valuable role of information technology in coordinating efforts to protect the environment of the indigenous peoples of Latin America.

Eco-tourism

The United Nations declared 2002 to be the "International Year of Eco-tourism."²¹⁵ Indigenous peoples should embrace the popularity of eco-tourism in order to benefit from it. In

fact, Indigenous Tourism Rights International warns that if tourism in indigenous lands is not supported by the indigenous peoples then tourism often “conflicts with traditional use, such as subsistence farming, fishing or hunting. Sacred sites such as rivers, rocks, and other places that are of spiritual significance are being destroyed.”²¹⁶

There are many ways in which eco-tourism furthers environmental preservation and provides funds for environmental programs. Not only do eco-tourism businesses rejuvenate the local economy by attracting wealthy foreign visitors who spend money, they also often produce profits which in turn can be used for environmental preservation. Through eco-tourism, the environment as a preserved space is profitable and, thus, national governments are less likely to allow exploitation of the land. In addition, indigenous peoples themselves have more incentive to preserve the land as preservation provides their livelihood. Also, the eco-tourists themselves may wish to mobilize support for preservation of the lands they visited.

The Internet provides many resources for indigenous peoples to establish and coordinate their own eco-tourism businesses. RARE Center for Tropical Conservation is an example of an Internet portal which assists eco-tourism businesses, including eco-tourisms e-business, operated by indigenous peoples in Honduras, Mexico, Belize, and Guatemala.²¹⁷ In addition, the *International Eco-tourism Society* maintains an online network and database which provides indigenous people with resources, business advice, networking with other successful eco-tourism projects, and a plethora of conservation information to ensure that eco-tourism continues to benefit the environment.²¹⁸

The increased environmental activism by indigenous peoples through communication technologies has an additional benefit: it increases the importance of indigenous peoples as players on the international stage.

Accessibility of Information Technology

It is important to note that for the average indigenous person in Central America, information technology is not an accessible tool. Most are more concerned about food, shelter, human rights and a basic education. However, once indigenous movements begin to build resources, the Internet will become very accessible, more accessible than people may imagine.

Availability of IT

In simply analyzing statistics of information technology usage in various Central American countries, it is apparent that very little of the general population uses the information technologies, and it can be inferred that even fewer indigenous peoples utilize information and communication technologies.

Appendix One (page 84) provides a table of statistics concerning the prevalence of communication technology in Central America, as compiled by the International Labor Organization in their “World Employment Report 2001.” The table demonstrates that a very small percentage of the Central American population utilize any communication technology at all, let alone digital information technology. In addition, the ILO reports that “barely 6 per cent of the world’s people have ever logged onto the Internet and 85 to 90 per cent of them are in the industrialized countries.”²¹⁹

However, the statistics also demonstrate that access to information technology is increasing throughout Central America, and sometimes at a rapid rate. For example, in just four years, from 1995 to 1999, the percentage of Costa Rican’s connected to the Internet increased from .4 percent to 3.8 percent. In the same time period, cellular phone use in El Salvador increased from .2 percent of the population to 6.2 percent. In Mexico the increases are dramatic: Internet use increased from .1 percent to 2.6 percent, cellular phone use increased from .7

percent to 7.8 percent, and the percentage of women users increased from 33 to 42 percent.²²⁰ Every single Central American country reports increases in usage and access to information technology. In fact, it is predicted that in 2004 Latin America will show the highest information technology growth rates in the world, capturing 5.3 percent of the total global market, with Brazil and Mexico leading the growth.²²¹

Despite increases, the percentage of information technology users in Central America remains minute, and most users are upper class or urban dwellers, not rural indigenous peoples. Most rural areas in Central America do not have information technology resources or infrastructure. The outsourced information technology jobs are primarily located in cities.²²² Communication studies in developing regions report “women's organizations in developing countries have little access to communication media beyond radio. They are unlikely to have tape recorders, VCRs, or stand-alone computers, let alone Internet access.”²²³

In addition, information technology can remain inaccessible even when there is physical access to it. Hafkin and Taggart report

access to information technology is not a simple question of whether there is a computer connected to the Internet ... Numerous other factors are just as significant ... These include education, financial resources, language, cost, location, culture, and skills... [People] need basic literacy and numeracy in order to read and compose simple messages, navigate the Internet, and execute commands in most software applications.²²⁴

Further, indigenous peoples need to be able to trust information technologies before they can fully utilize IT to their advantage. The vast amount of knowledge available on the Internet is not beneficial unless indigenous people are able to disseminate between truth and lies and determine what information is valuable.²²⁵ Since many indigenous people already distrust globalization, it is likely that they will also continue to distrust information technology as whole. While much information on the Internet is not trustworthy, indigenous peoples who maintain a wholesale

distrust of information technology will be unable to benefit from the trustworthy knowledge IT does offer.

Leapfrogging

Central America could experience a rapid acceleration in the availability and extent of information technology because of the leapfrogging potentials inherent in digital technologies. The International Labor Organization defines leapfrogging “as the ability to bypass earlier investments in the time or cost of development.”²²⁶ The leapfrogging potential is greatest in wireless technologies.

Brandon McKelvey, a software engineer on an embedded wireless system, discussed the possibilities of broadband high-speed Internet accessibility in the far recesses of Central America: “It is possible that underdeveloped nations could catch up exponentially to the United States with the use of Generation Three technology.”²²⁷ Generation Three technology is advanced wireless technology. It provides “the bandwidth and speed that people are accustomed to connected to a land line but instead via a wireless link.”²²⁸ The most prolific Internet technology in the United States is a landline connection. The United States was able to build the Internet quickly through landlines because it had enough existing infrastructure through the already accessible telephone and cable lines in virtually every American home. The indigenous populated countryside of Central America obviously does not have this infrastructure. However, neither did South Korea or Japan and, as a result both were forced to develop wireless Generation Three networks, which are more advanced than the United States’ network. The Generation Three networks do not require any landlines, only towers about every twenty miles.

Generation Three technologies are revolutionary because they are relatively inexpensive, and a region does not need to have prior technological infrastructure in order to implement this

more advanced technology. In fact, the ILO reports that through Generation Three and other wireless technologies “developing countries can bypass more costly and time-consuming investments in fixed-wire telecom infrastructures.”²²⁹ Wireless connections can be established in “sparsely populated areas where there are no landline telephones” at inexpensive rates.²³⁰ Thus, the indigenous peoples of Central America could go from no Internet technology or even no television and telephone, to the most advanced Generation Three networks in only a few years.

In addition, Internet technology can bypass once required literacy and language skills. Hafkin and Taggart report that with advanced technology indigenous peoples “don’t need to be literate: interfaces have been developed using icons, graphics, touch screens, and voice recognition for the illiterate and neo-literate.... [and] don’t need language: translation software, even to/from relatively obscure languages, is becoming easily available.”²³¹

However, there are a few small hurdles indigenous communities must overcome in order to gain Generation Three networks. First, Internet providers must be willing to establish Generation Three networks in these regions. Mr. McKelvey warns that, in order to make a profit, these companies may attempt to convince Central American governments to build landlines before they initiate Generation Three technologies. In fact, Internet providers like AT&T and Verizon already provide landline service to the major cities in Latin America.²³² Thus, indigenous populations and their governments must be willing to embrace the transnational corporations as an important part of globalization. If countries ask for Internet access to the far reaches of the country, Internet providers will be forced to provide wireless Generation Three service because the infrastructure for landlines does not exist. Thanks to free market neo-liberal theory, it is very likely that several Internet providers will compete to be the providers of this service.

Developing communities throughout the world have achieved inexpensive and accessible Internet access through creative methods and thus provide hopeful examples for Central American indigenous communities. In South Africa, communities without telephone lines and cellular telephones in the sparsely populated *KwaZulu Natal* province developed Internet access by combining radios, personal computers, satellite broadcast, antenna, LAN, DSB dishes, and satellite receiver cards.²³³ The Internet solution provides access to both web browsing and email and costs the community \$2,300 for the Telecenter, \$3,000 for each rural site, and \$40 a month to maintain the connection.²³⁴ The Indian Institute of Science invented the Simputer especially for the rural poor.²³⁵ Costing only \$200, “the battery-run pocket computer/Internet access device uses free software and features a smart card that could provide a whole village with separate personal accounts on one machine.”²³⁶

In Central America, The Mayan Council for Communication in Sololá telecenter project in Guatemala provides yet another example of creative solutions to Internet accessibility problems, including cost and technical resources. In order to overcome the expense of the telecenters, the Mayan Council created local income through utilizing the technology including “video products for local clients ... such as weddings and other events, documentaries and educational productions for organizations.”²³⁷ In order to resolve technical problems such as dust and humidity and the poor quality and inaccessibility of basic services such as electricity and telephone, the Council implemented a

design of a simple basic system that can be serviced and repaired without complication ... with electrical grounding and UPS's sufficient for the number of computers. [In addition,] each Telecenter trains local permanent operators trained in system maintenance.²³⁸

Eventually, perhaps very soon, Internet and information technology will be prevalent and accessible to the far reaches of Central American indigenous populations due to leapfrogging technologies and creative ideas. At that point, the indigenous peoples must decide to utilize the communication technologies to their advantage or be left behind in the information technology era.

Chapter Three: Global Assessments and Actions

Globalization, thus far, has far more victims than beneficiaries. In this regard it is very similar to the international systems of the past. During the Age of Exploration in the sixteenth century, European powers benefited at the expense of the indigenous peoples. During the Industrial Revolution, factory owners benefited at the expense of laborers. During the Cold War, the United States and the Soviet Union benefited at the expense of Third World “proxy” nations. The current trend in globalization is that the rich of the North benefit at the expense of the poorer South. However, with the continued use of global information technologies, globalization is not necessarily destined to be marginalizing; rather, it has the potential to be empowering. Globalization is different from other international systems because it is not predetermined who benefits and who does not. In fact, it is possible through the use of information technologies that everyone, including the indigenous peoples of Central America, can benefit from globalization and achieve economic, political, cultural, social, and environmental empowerment.

However, the only way to increase power and potential in this international system is to embrace and utilize globalization’s empowering tools, notably, information technologies. Globalization is inevitable; while attempts to undermine the global system will probably not succeed, attempts to shape globalization in a manner which advances indigenous peoples’ situation in the global community will thrive and thus benefit indigenous peoples

In order for indigenous people to truly benefit from globalization, positive attitudes and action towards change must be embraced by indigenous people and their leaders, nation states, particularly the United States and Central American governments, corporations, and the international community, including the UN, international financial institutions, and non-governmental organizations.

Indigenous Approval

Indigenous movements should use their successes at organization and governance to embrace the potential of globalization's still yet untapped power. The indigenous peoples of Central America should strive for a new era of "globalization from below" to replace the current system of "globalization from above."²³⁹

As discussed in Chapter One, throughout Central America, there are many indigenous organizations and confederations who have chosen to embrace the struggle against globalization as their primary concern. Currently, there are several solidarity campaigns among indigenous organizations involved in this "global struggle." Pablo Richard believes that Central American indigenous movements are becoming powerful enough that if they continue to build solidarity amongst each other, they will "constitute a large and powerful social base that has the potential to create a new society based on the identity and strength of the people themselves."²⁴⁰ Certainly, indigenous organizations desire this positive outcome for their peoples.

However, as the Zapatistas and COPIN lead the path towards Central American indigenous solidarity, they will certainly continue to advocate the struggle against globalization and neo-liberalism. Unfortunately, this may not be the most desirable path for the indigenous community of Central America. As efforts for indigenous rights shift their focus towards fighting globalization, Mr. Richard's prediction of a "new society" is less likely to achieve fruition. The shift towards internationalization of the indigenous movement for rights is beneficial only if indigenous peoples embrace, and use to their advantage, the international system, the international community and the tools of globalization, like information technology.

While the organizations such as the Zapatistas and COPIN have mobilized many indigenous groups throughout Central America as a direct result of their global campaign, complete emphasis on “fighting” neo-liberalism detracts from their initial premise: helping the indigenous of Mexico achieve a sense of independence and humanity after years of marginalization. Instead, indigenous organizations should utilize their global campaign to embrace globalizing technologies and further their domestic success.

The Zapatistas’ campaign on the home front has been a resounding success. The Zapatistas enable and encourage the indigenous municipalities in Mexico to provide social structure and services to their communities. The municipalities engage in social projects such as education and health, and economic projects such as farming, to improve the condition of the indigenous residents. The Zapatistas ensured that the municipalities train teachers in both Spanish and their native language, established health clinics in five communities, and created an agricultural production project.²⁴¹ In addition, the Zapatistas continue to march to Mexico City to present the political needs of the indigenous people to the government. The Zapatistas will continue to march until the legislators “respect the agreement regarding indigenous rights and culture as signed by the Zedillo government.”²⁴²

Despite the negative reaction of the Honduran government, COPIN has achieved domestic successes for the indigenous peoples of Honduras. In the last six years COPIN has convinced the government to build several health centers, schools, and bridges. Perhaps their greatest achievement is an agreement, signed by the President Carlos Roberto Reina of Honduras and several human rights organization, which recognizes indigenous rights.²⁴³ As a result of the agreement, Honduran government felt obliged to ratify *International Convention 169 on*

*Indigenous People.*²⁴⁴ In theory, this document enables COPIN to present alternative legislative proposals to reclaim rights that, although they never were written into law, are based on their traditions as indigenous peoples.

However, indigenous organizations have already begun to lose sight of this regional struggle in their global struggle. Many indigenous “rank and file” feel distanced from their “increasingly internationalized” leaders.²⁴⁵ In fact, it would be much more beneficial to their global campaign if the Zapatistas and COPIN taught other indigenous organizations about their domestic successes instead of attempting to unite an implausible global campaign against the global system.

Capitalism's Alternatives

As demonstrated in Chapter Two, many indigenous organizations are already using the information technologies of globalization towards economic empowerment. However, all indigenous organizations, furthered by globalization or otherwise, are “having a difficult time formulating an economic program to compete with the neo-liberal ideals that currently hold sway.”²⁴⁶ Instead of competing with the global economic system, indigenous organizations would find it more productive to utilize the global economic system to their benefit.

Not everyone has to adopt capitalism in the same manner. It is possible for indigenous organizations to embrace a modified, socialist form of capitalism that is compatible with neo-liberal institutions while, at the same time, ensures that certain social needs are met. In fact, there are already organizations in Central America that attempt to do this. One of these is the Mexican Action Network on Free Trade, a coalition of citizens' groups across Mexico which has created an alternative economic plan designed to balance capitalism and social concerns. The proposal “focuses on shifting incentives and resources away from speculation into real economic

activity. The proposal emphasizes strengthening the country's productive capacity and creating stable jobs with decent wages."²⁴⁷ In addition, the Network encourages cooperation between workers, farmers, and businessmen.

State Involvement, or Lack Thereof

For the Central American indigenous peoples to achieve greater success in their struggle for economic, political, cultural, and social empowerment, they will need more support and recognition from the nation states in which they reside. Since the United States government has been, and continues to be, actively involved in Central America, it is also important to assess their current and future involvement in Central America.

US Involvement

In 1910, Mexican president Porfirio Diaz lamented "Poor Mexico. So far from God and close to the United States."²⁴⁸ For more than a century, the indigenous peoples of Central America have echoed Diaz' sentiments and resented the United States' government involvement in Central America. However, in the globalization era thus far, US government intervention in Central America has been far more beneficial than in previous decades. In order to assist in the empowerment of the indigenous peoples of Central America, the US government must continue its recent foreign policy trends of less military and political intervention, and more positive economic assistance.

During the Cold War era, the United States aided Central American governments in suppressing popular, peasant, and indigenous rebellions by dismissing the movements as "leftist" and thus "communist." However, since 1990, US military presence in Central America, whether covert or overt, has greatly diminished because the fall of the Berlin wall signified the victory of liberalism, specifically, neo-liberalism. Neo-liberalism, the theory underlying globalization, is

also a theory of non-intervention. Not only does this imply non-intervention in the markets, it also implies non-intervention in the affairs of other states.²⁴⁹ Since there is no longer an immediate communist threat in Central America, the US has, for the most part, followed this non-interventionist strategy in the region. As the Chapter One demonstrates, indigenous rebellions are flourishing and succeeding in Central America without US intervention, which was exceedingly prevalent in the past century.

The bulk of US presence in Central America today is through civilians, not militants or agents. Economic intervention by US based transnational corporations is far more prevalent than political or military intervention by the United States government. While there still are economic attempts at restructuring Central American economies, on the whole the United States has left political freedom to the people of Central America. However, the United States should attempt to hold US based transnational corporations accountable for abuses of indigenous societies.²⁵⁰ The US based transnational corporations which are in flagrant violation of US law, international law, or international treaties, should be prosecuted for their actions by the United States judicial system when jurisdiction applies. In order to further indigenous empowerment, the United States government must discontinue the practice of ignoring transnational corporate abuse.

It is also important for the United States to continue their policy of positive economic assistance to Central America. The Digital Freedom Initiative is one positive economic assistance program that embraces information technology. Sponsored by a variety US agencies²⁵¹ and launched on March 4, 2003, this initiative utilizes “information and communication technology (ICT) in developing countries” in order to “provide inexpensive and critical access

to domestic and global markets, allowing the invisible hand of the market to be a helping hand to the poor.”²⁵²

By 2006, the Digital Freedom Initiative will expand to twenty developing countries in Africa, Asia, and America. The Digital Freedom Initiative intends on achieving its objective of “helping the poor” through ICT by

placing volunteers in small businesses to share business knowledge and technology expertise; promoting pro-growth regulatory and legal structures to enhance business competitiveness; and leveraging existing technology and communications infrastructure in new ways to help entrepreneurs and small businesses better compete in both the regional and global marketplace.²⁵³

Through the Digital Freedom Initiative, many indigenous peoples of Central America will have the opportunity to access digital communication technology to facilitate and improve their economic condition.

Central American Government Support

Central American governments have often ignored the needs of indigenous peoples, in fact, they often ignore that indigenous peoples even exist. The leader of COPIN, Berta Isabel Cáceres remarked, “Some people believe that indigenous people are something from the past – that we don’t exist anymore.”²⁵⁴ However, with increased pressure from the international community, due in large part to the internationalization of the indigenous struggle, Central American countries are slowly recognizing the rights of indigenous peoples who reside in their borders. It is essential that in addition to recognition, the governments provide indigenous peoples with the support they need.

Primarily, indigenous peoples need access to government agencies and services. At the 1993 United Nations Working Group on Indigenous peoples, the Latin American caucus “appealed to their states’ diplomatic core to facilitate access to state agencies at home.”²⁵⁵

Central American governments should attempt to extend their social services to the indigenous population. Certainly, indigenous peoples need more access to health care. In addition, the International Labor Organization's "World Employment Report 2001" cautions

literacy and education cannot be leapfrogged, yet both are vital for reaping the greatest advantages from the emerging digital era. The promotion of education and literacy generally, and digital literacy in particular, is a challenge facing all countries.²⁵⁶

Central American countries need to begin to face the challenge, instead of avoiding it, and provide similar educational resources in the indigenous rural areas as they do in the urban cities.

As demonstrated in Chapter Two, information technology has the potential to provide cost effective and conducive educational social services in rural indigenous areas. While many indigenous peoples are able to receive funding for information technologies from private institutions and North American and European governmental agencies, many more do not. Central American governments, however, can embrace state supported information technology programs, subsidize computer hardware and computer education, and support policy to further the dissemination of information technology, which would rapidly increase the access to information technology for all of its constituents, including indigenous peoples.

Even if countries cannot afford to fund communication infrastructure programs, Hafkin and Taggart stress the "need for policies on information and communications technologies to guide the development of their [developing countries'] national information infrastructure."²⁵⁷ Central American governments can further access to information technology by simply creating "regulations [to] allow resale of communications services."²⁵⁸

In fact, it may become essential for Central American governments to promote information technology legislation and provide IT infrastructure in order to compete and survive in the world economy. Brandon McKelvey warns that it is imperative to utilize the Internet

because the global economy is becoming digital. “If one’s business is not on the Internet, he will not have any customers. If one’s country is not on the Internet, it will not have any tourist visitors.”²⁵⁹ Eventually, denial of access to the Internet may result in denial of access to the empowerment of globalization.

Hopefully, with more access to their own national government agencies, through information technologies and international pressure, indigenous peoples will be able to convince their national leaders to offer more social services and encourage their governments to promote policies conducive to information technology infrastructure. It is certainly empowering if the indigenous peoples can be involved in the shaping of new national policy, especially on information technology.

Case Study: Senegal

Senegal provides a hopeful case study of a developing nation which, through state supported programs, achieved, and continues to achieve, economic success by utilizing globalizing communication technology. In 1996, Senegal began to make “significant investments in technology” and, as a result, is “currently benefiting from a relatively high rate of penetration and growth of technology-related services.”²⁶⁰ In fact, as of March 2003, “more than 10,000 mostly entrepreneur-managed phone shops, many equipped with Internet access, serve poor urban and rural populations.”²⁶¹ In 1996 very few people subscribed to cellular telephones, but by 2003 more than one-quarter million Senegalese use cell phones, and that number is increasing with the advent of additional communication companies.²⁶² The dramatic increase in communication technology in just seven years has impacted the economy, making it “possible for Senegalese to gain more effectiveness in market penetration and trade.”²⁶³

Senegal experienced the economic benefits of digital information and communication technology even before the Digital Freedom Initiative launched in Senegal on March 4, 2003. The Initiative will further increase Senegal's progress towards obtaining advanced globalizing communication technology, and, as a result, towards economic development. The Senegal pilot will, in four a four year time period:

Place over 100 volunteers to assist small businesses and entrepreneurs in growing their businesses through ICT, and the government of Senegal with regulatory reform; leverage nearly 200 cybercafes and 10,000 telecenters to generate information and services that provide business opportunities for small businesses and entrepreneurs; benefit over 360,000 small businesses and more than half a million Senegalese; and train and equip the 130 Peace Corps Volunteers in Senegal who require laptops and other technology to perform their service duties.²⁶⁴

The dramatic increase in communication technology required relatively small overhead. Extending cellular service to 950 cities, including remote regions of Senegal, required an investment of five hundred billion Fcfa (seven hundred eighty one million dollars) from the Senegalese telephone company Sonatel, an investment which will most likely show returns, even profits.²⁶⁵

The President of Senegal, Abdoulaye Wade, who is an economist as well as a politician, encouraged other developing nations to embrace the globalization of communication in his speech on March 4, 2003. He advocated that developing countries, "join the train of globalization as a respected player and partner." He noted that "e-government, e-health, education, e-economy are real shortcuts in order for us to quickly catch up." And, he announced, "I am delighted to propose the concept and mechanism of 'Digital Solidarity.'"²⁶⁶ Central American nations and indigenous people can also embrace the globalization of communication to their economic advantage. With the Digital Freedom Initiative, the digital infrastructure needed may very soon be in effect.

Non-Governmental Organizations

Non-Governmental Organizations (NGOs) have been important sponsors and providers for information technology initiatives in Central American indigenous communities. The Mayan Council for Communication in Sololá's telecenter project proposal declared, "logically, the greater part of the financing for NUTZIJ came from international clients or projects commissioned by international organizations."²⁶⁷ NGOs which often support Central American indigenous initiatives include "Cultural Survival, OXFAM America, and the Inter-American Foundation."²⁶⁸ In addition, the Zapatistas receive organizational or financial support from at least thirty-seven non-governmental organizations.²⁶⁹ NGOs and indigenous organizations are inexorably linked to the extent that it sometimes becomes difficult to distinguish between indigenous domestic movements and their international supporters.²⁷⁰

Certainly, many Central American indigenous communities and information technology initiatives are dependent on NGO support for survival.²⁷¹ Thus, continued support from NGOs is necessary for continued access to and empowerment through information technologies.

Capitalism's Concessions and Cooperation

As demonstrated in Chapter One, capitalism, in the form of transnational corporations, has beleaguered indigenous peoples. However, in order for indigenous peoples to achieve empowerment in the global system, transnational corporations must concede to respect indigenous rights while they operate in indigenous lands. In addition, transnational corporation cooperation, especially in the information technology sector, would greatly enhance indigenous access to information technology and further their empowerment.

Concessions

Transnational corporations must cease violating indigenous rights, and international law, while they operate on indigenous lands and in indigenous regions. This includes ceasing the practice of enforcing treaties and land ownership papers signed hundreds of years ago in order to oust indigenous peoples who have established homes on the land. This includes ceasing the practice of environmentally devastating indigenous lands. This includes ceasing to request that Central American governments employ military force against their indigenous peoples. Basically, transnational corporations should act in a honorable manner towards the indigenous peoples and the environmental lands they occupy.

Cooperation

Capitalists have been unwilling in the past to cooperate with indigenous organizations. Bill Gates, of Microsoft corporation, announced in 2000 that “poor people need good health, not computers.”²⁷² However, as Chapter Two demonstrates, information technology enhances indigenous peoples access to “good health” and increases their likelihood to achieve other social, economic, political, cultural and environmental needs. In contrast to Mr. Gates, Hafkin and Taggart emphatically declared that “Health, water, food, education, and information technology are not in opposition to each other in the drive to empower ... developing countries. They are all needed.”²⁷³

Transnational corporation cooperation is certainly valuable in information technology projects in indigenous communities. Several transnational corporations supported, funded, or contributed to the many indigenous organizations and communities discussed in this paper. For example, *Enlance Quiché*, the educational and cultural project in Mayan Guatemala which

utilizes information technology, is sponsored and funded by the Microsoft Corporation.²⁷⁴

Digital Dividends, a web portal which supports and partially funds many information technology initiatives in the developing world, including partially funding the Mayan Council for Communication in Sololá's telecenter project, receives corporate support and finance from several collaborators, "including Cable & Wireless, C.K. Prahalad, Ericsson, Hewlett-Packard, Bill Kramer, the Markle Foundation, Microsoft, Motorola, and PRAJA inc."²⁷⁵

Continued and increasing transnational corporation support of indigenous information technology initiatives will certainly contribute to the empowerment of indigenous peoples through the use of information technologies.

International Action

Just as Central American indigenous communities must embrace the international community in order to find empowerment, the international community, including international financial institutions, debt holding nations, and organizations such as the United Nations and Organization of American States, must likewise, embrace indigenous peoples and the nations in which they reside.

International Financial Institutions and Debt Holding Nations

In the same manner that indigenous people in Central America should utilize globalization to advance themselves economically, the United States and other debt holding countries should allocate additional funds to developing nations so that the global market functions equitably and prosperously. Central America has an abundance of resources, and there is no reason why Central America should not be able to compete at a global level. However, in order to do so, Central Americans need to be able to transfer money into local communities, including indigenous communities, through education and agricultural projects. Currently, most

profits from Central American governmental initiatives are sent directly to repay foreign debts and loans.²⁷⁶

The global economy has the potential to be far more prosperous than it is now. Much money that could be used to increase resources is stagnating in the international financial institutions' bureaucracy. "Structural adjustment" and other World Bank and IMF programs have failed. It is time for debt holding countries to lessen or eliminate Third World debt. Not only will this benefit the Third World, but the entire global economy.

On a positive note, international financial institutions already have in place programs designed to lessen Third World debt. For example, the World Bank provides massive debt relief to nations in dire economic situations.²⁷⁷ However, nations must apply and agree to specific requirements. Instead of disregarding the World Bank altogether, indigenous peoples should consider encouraging their governments to apply for this World Bank program and then support their nation's new and improved relations with the international financial institutions. However, it is essential that international financial institutions extend debt relief offers to more nations, end the policy which penalizes Third World debt, and refrain from imposing economic programs which only exacerbate debt and dependence on the financial institutions.

Transnational Organizations

It is also imperative that transnational organizations such as the United Nations (UN) and the Organization of American States (OAS) recognize and embrace indigenous peoples as important actors in the organizations. There are hopeful signs that this is already happening. The United Nations has a United Nations Working Group on Indigenous peoples and "established a voluntary fund to sponsor indigenous representatives' participation at international meetings."²⁷⁸

However, continued recognition and support is needed if indigenous peoples wish to truly emerge empowered after centuries of marginalization.

Conclusion

Globalization is a very young international system whose future remains to be determined. No one is able to claim monopoly over its organization, economics, politics, culture, society, or the global environment. No one is able to proclaim itself as globalization's benefactor. And, no one, not even the destitute indigenous populations in Central America, can maintain they are inherently marginalized by the new global system. It is unlikely that globalization will ever be controlled; however, it is important to tap into its boundless resources, particularly information technology resources, while they are still abundant.

Indigenous groups in Central America have had great successes in ensuring a better livelihood for their peoples since the fall of the Berlin wall. However, if they turn the energies they are using to fight globalization into energy that embraces the empowerment of globalization, especially through information technology, their success has the potential to be exponentially grander than any could have hoped.

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 222 *Internetnews.com*, 29 March 2000, Internet on-line, Available from <http://www.Internetnews.com/business/article.php/6_330241>, [17 March 16, 2003].
- 223 Primarily urban locations of outsourced jobs reported in Hafkin, 50.
- 224 Women's organizations lack of technology is found in Ibid, 19.
- 225 Skill necessary to access the Internet discussed in Ibid, 63.
- 226 Trusting the Internet is discussed by Heeks.
- 227 Definition of leapfrogging from ILO, "World Report."
- 228 Mr. McKelvey's comments on Generation Three technologies and Central American indigenous access to
 the Internet is from Brandon McKelvey, interview by author, 23 March 2002, Fairfax, VA.
- 229 Wireless technology information provided by McKelvey, interview.
- 230 Wireless technology bypasses traditional infrastructure from ILO, "World Report."
- 231 Cost of wireless set-up in sparsely populated regions provide by Hafkin, 83.
- 232 Bypass literacy and language skills reported in Ibid, 84.
- 233 AT&T in Latin America. *AT&T Website*, 2002, Internet on-line, Available from
 <http://www.att.com/latin_america/availability.html>, [24 March 2002].
- 234 South African Case Study written by Ronel Smith, "Overcoming Regulatory and Technical Challenges to
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 2003].
- 235 Ibid.
- 236 Simputer information provided in Hafkin, 84.
- 237 Ibid.
- 238 Mayan Council's telecenter information is available at <<http://www.mayacom.org/>>.

Chapter Three

- 239 The terms "globalization from below" and "globalization from above" come from Wright, 28.
- 240 Strength of popular movement elaborated upon in Richard, 41.
- 241 Education, health, and agricultural projects are discussed by Hidalgo and Osuna.
- 242 Author's translation of "respeten el acuerdo firmado sobre Derechos y Cultura Indígena por el gobierno de
 Zedillo" from the ELZN website.
- 243 COPIN'S achievements described by Cáceres, online.
- 244 International Convention 169 on Indigenous People is described by Ibid.
- 245 Indigenous peoples distanced from their leaders is reported in Brysk, 45.
- 246 The problems with finding an economic alternative to globalization are expanded upon in "Neoliberalism
 and the Challenge Of Peace in El Salvador," in *The Globalization of Hope: Central America, Mexico, and the
 Caribbean in the New Millennium*, eds., Butwell, Ann, Kathy Ogle, and Scott Wright (Washington, DC: Library of
 Congress, 1998), 52.
- 247 The Mexican Action Network on Free Trade is discussed in Wright, 70
- 248 Diaz' lament is recorded in Schoultz.
- 249 At this point, it is important to note that, in practice, States do not always adhere to their proclaimed
 theories.
- 250 Legislation is already in place to curb and eliminate such abuses, such as the Foreign Corrupt Practices Act.
- 251 The US Agency for International Development, the US Department of Commerce, the US Department of
 State, the US Freedom Corp, and the Peace Corp.
- 252 The Digital Freedom Initiative's mission is stated on the *Digital Freedom Initiative Website*, <
<http://www.dfi.gov>>.
- 253 DFI's objectives are listed in the *Press Release*, March 4, 2003, found on <<http://www.dfi.gov>>.
- 254 The anecdote that indigenous people don't exist comes from Cáceres, 99
- 255 Appeals to for government access at the 1993 UN Working Group from Brysk, 42.
- 256 Cannot leapfrog literacy and education quoted from ILO, "World Report."
- 257 Countries need information technology infrastructure discussed in Hafkin, 69.
- 258 Suggested IT policies in developing nations are discussed in Ibid, 76.

McKelvey, *Interview*.

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Sonatel's cellular phone investment was reported by Yacine Kane, "La Sonatel étale ses innovations," *Sud Quotidien (Dakar)*, 28 February 2003, Internet on-line, Available from <<http://fr.allafrica.com/stories/200302280421.html>>, [25 April 2003]. The conversion to US dollars is based on an exchange rate of 640Fcfa to 1 US dollar provided by the South African government website <www.dfa.gov.za>, [25 April 2003].

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Mayan Council's telecenter proposal is available at <<http://www.mayacom.org>>.

NGO supporters of indigenous initiatives are listed by Brysk, 42.

A list of organizations which support the Zapatistas is provided by Wheaton, 44.

Difficulty in distinguishing between indigenous movements and NGO projects noted by Brysk, 44.

Information technology initiative dependent on NGO support is reported by Hafkin, 76.

Bill Gate's speech at the at World Resources Institute Digital Dividends Conference, Seattle, October 2000 can be found at <<http://www.digitaldividends.org>>.

Information technology is as necessary as health, water, food, etc., proclaimed by Hafkin, 9.

Microsoft's funding of *Enlace Quiché* is detailed on their website <www.enlacequiche.org>.

Digital Dividend's collaborators are listed on their website <<http://www.digitaldividend.org>>.

Absolute priority... given to the payment of the external debt," is discussed in Pedro Casaldáliga, et. al., "Standing at the Doors of a New Millennium," in *The Globalization of Hope: Central America, Mexico, and the Caribbean in the New Millennium*, eds., Ann Butwell, Kathy Ogle, and Scott Wright (Washington, DC: Library of Congress, 1998), 34

World Bank debt relief information was provided by Mack, interview.

UN voluntary fund for indigenous leaders reported in Brysk, 43.

APPENDIX ONE

Communication Technology (as a % of total population)*

Country	Year	Internet host	Internet users	Estimated PC's	Main telephone	Mobile cellular lines	Digital cellular subscriber	Television receivers subscriber
Costa Rica	1990	0	-	-	10.1	0	0	22.1
	1995	0	0.4	-	14.4	0.6	0	22.5
	1999	0.2	3.8	-	20.4	3.6	-	37.4
El Salvador	1990	0	-	-	2.4	0	0	9.2
	1995	0	-	-	5.0	0.2	0	13.3
	1999	0	0.6	-	7.6	6.2	-	19.1
Guatemala	1990	0	-	-	2.1	0	0	5.3
	1995	0	0	0.3	2.9	0.3	0	6.0
	1999	0	0.6	-	5.5	3.2	-	-
Honduras	1990	0	-	-	1.7	0	0	7.2
	1995	0	0	-	2.7	0	0	7.6
	1999	0	0.3	-	4.4	1.2	-	-
Mexico	1990	-	-	0.8	6.5	0.1	0	15.0
	1995	0	0.1	2.6	9.4	0.7	0	21.3
	1999	0.4	2.6	4.4	11.2	7.8	-	-
Nicaragua	1990	0	-	-	1.3	0	0	6.5
	1995	0	0	-	2.2	0.1	0	6.9
	1999	0	0.4	-	3.0	1.4	-	-
Panama	1990	0	-	-	9.3	0	0	17.2
	1995	0	0.1	-	11.6	0	0	17.9
	1999	0	1.6	-	16.4	8.6	8.6	-

* All information and statistics in Appendix One are from International Labor Organization, "World Employment Report 2001."

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